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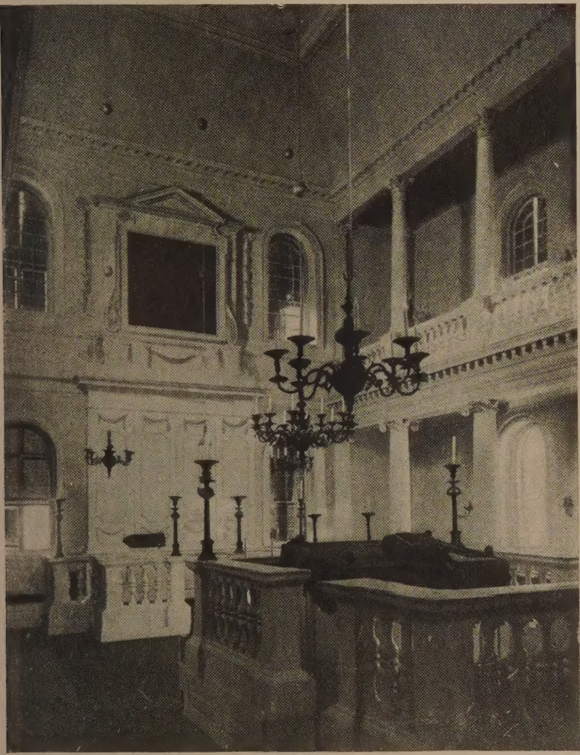
The Colonial Amateurs and Their Models: Peter Harrison

(Conclusion)

By Fiske Kimball

Author of "Early American Domestic Architecture"

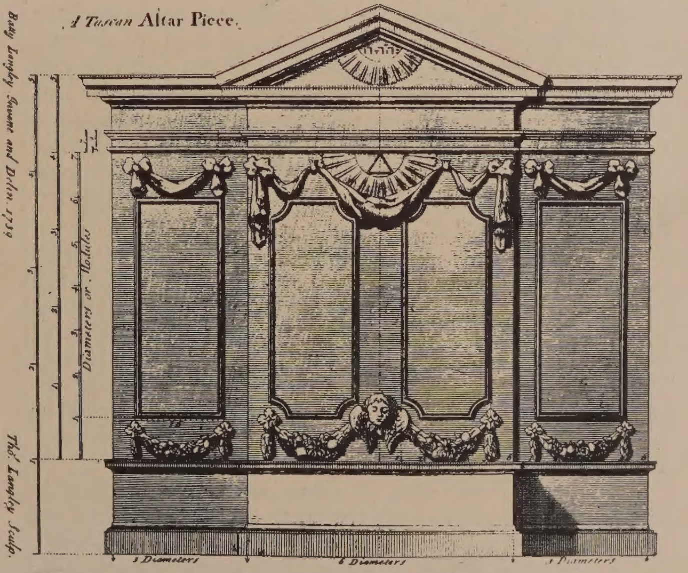
WITH Kent's and Gibbs's books in hand we readily recognize also Harrison's sources for the Synagogue in Newport (1762–63). The general inspiration comes from one of the designs for Whitehall Palace, as represented by Kent, which shows a two-story galleried hall having Ionic columns below, Corinthian above, and an arched ceiling. The details of the interior colonnades come directly from Plate XXXV, except for the curved frieze of the Ionic, shown by Kent, which appears, with the other profiles exactly as built, on Gibbs's Plate XLVI. The gallery balustrade is identical with the left centre figure of Plate LXII, the lower balustrades with the upper left figure. The interior casing of the main doorway is much like the doorway of the Redwood Library. The festoons may come from a figure in Gibbs's "Book of Architecture" (1728), another book which Harrison consulted, as we shall see. Its consoles and mouldings are from Gibbs's "Rules," Plate XLVII. The exterior porch is closely similar to the right-hand figure of Plate XXXIX.



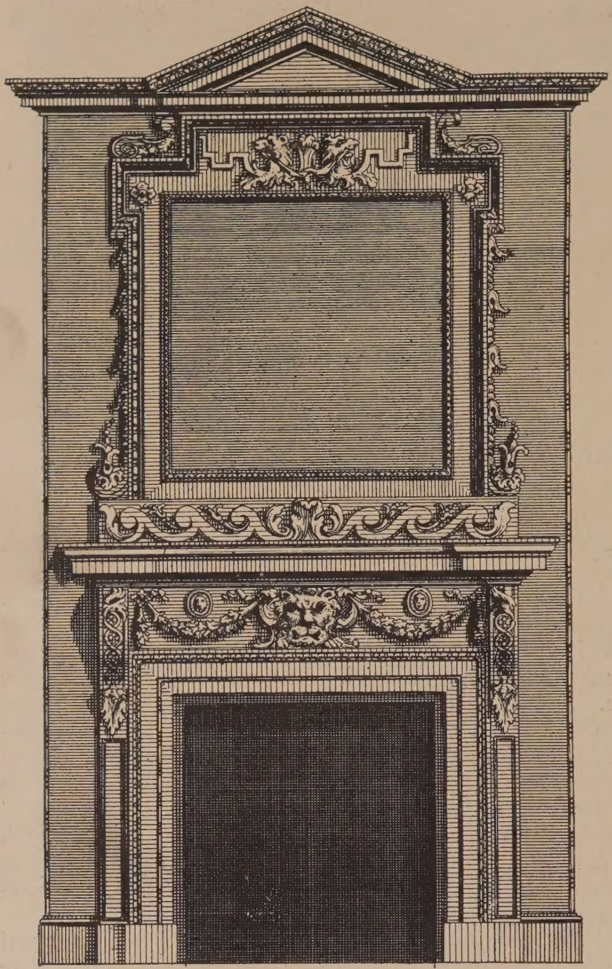
Interior of the synagogue, looking east. Photograph by J. Rugen.

The Ark at the east end of the Synagogue presented a problem for which there was little direct example in current practice, and we may imagine Harrison poring over his books for some time before arriving at the admirable solution we see. For the lower part, the Ark proper, he based his design on one for an altar-piece shown in Batty Langley's "Treasury of Designs" (1745), Plate 35. Over this he placed an ornamented frame like that of an overmantel, deriving its form partly from a figure on Plate 63 of Kent's "Designs," and partly from a design of Kent shown in Ware's Plate 53, which has the type of consoles which Harrison used, and also a pedestal, such as the general design of the room required.

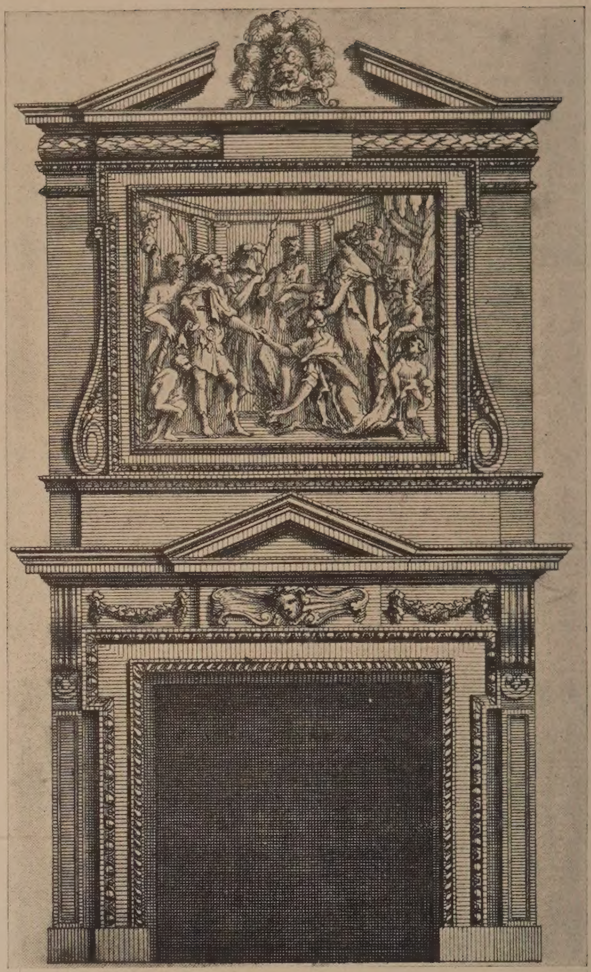
The same plate of Langley served Harrison as a model for the altar-piece of King's Chapel, Boston (1749–54). Here the sunburst of the original appears along with the cherubs' heads, and garlands which are transposed in position. We find in Gibbs's "Rules" all details of the fine interior order of the church, especially the profile of its richly beaded base, as well as the characteristically moulded and carved balusters of the altar rail (Plate LVII, upper right-hand figure). The exterior flanks of King's Chapel, with its tall arched



Harrison's model for the ark of the synagogue and for the altar-piece of King's Chapel. Batty Langley, "Treasury of Designs" (1745), Plate XXXV.



Harrison's model for the upper part of the ark. Kent, "Designs of Inigo Jones," Vol. I, Plate LXIII.



Harrison's model for the upper part of the ark. Ware, "Designs of Inigo Jones and Others" (1743). Plate LIII.

windows above low segmental-headed ones, follow Gibbs's "Book of Architecture," Plate 24.

In Christ Church, Cambridge (1761), the large angular-Ionic order of the interior again comes from Gibbs's "Rules," without a line changed. The organ loft, with its triumphal-arch motive, is suggested chiefly by Plate XXXVI of the same work. The exterior of Christ Church seems to have been the freest of Harrison's designs; at least, no general model for its treatment is known to the writer. The various features, however, such as the tall arches, with imposts and archivolts, the heavy Roman Doric cornice, and the cruciform belfry stage, are familiar elements in various plates of Gibbs's "Book of Architecture," and Harrison would seem to have derived his vocabulary for the design mainly from this source.

In the grounds of the Redwood Library now stands an octagonal summer house removed thither some years ago from the Abraham Redwood estate, on West Main Road, now the property of Bradford Norman. Its rustic blocks of wood recall those of the Library itself and suggest that Harrison was its author also. This becomes almost a certainty when we find that it came straight from one of the books he commonly used—Gibbs's "Book of Architecture," Plate 80.

We readily see, after all these confrontations, that in Harrison's case we no longer need to assume a professional apprenticeship and experience in England. To assume this, indeed, involves a basic preconception which is historically inaccurate. It was the literary culture of the gentleman, and not the training of the professional, which prepared him—like Wren, Vanbrugh, and Burlington before him—to excel the traditional craftsman. In the academic architecture of England and America during the eighteenth century it was the amateur who led the way, and Harrison was the prince of the Colonial amateurs.

To summarize the influences which bore on Harrison, we may first recapitulate the architectural books of his library* as evidenced unequivocally by motives surely drawn from them:

"Palladio," edition of Edward Hoppus, octavo, 1735, or "Designs of Inigo Jones and Others," by Isaac Ware, octavo, 1743. "Designs of Inigo Jones," by William Kent, two volumes folio, 1727. "Vitruvius Britannicus," by Colin Campbell, vol. 1, folio, 1715. "Book of Architecture," by James Gibbs, folio, 1728. "Rules for Drawing the Parts of Architecture," by James Gibbs, small folio, 1732. "Treasury of Designs," by Batty Langley, quarto, 1745.

All these represented the Palladianism of eighteenth-century England, as colored by the great school of Campbell and Burlington, of which Kent, Ware, and Edward Hoppus were disciples, and from which Gibbs, for all his baroque leanings, could not escape. In Harrison's work the baroque

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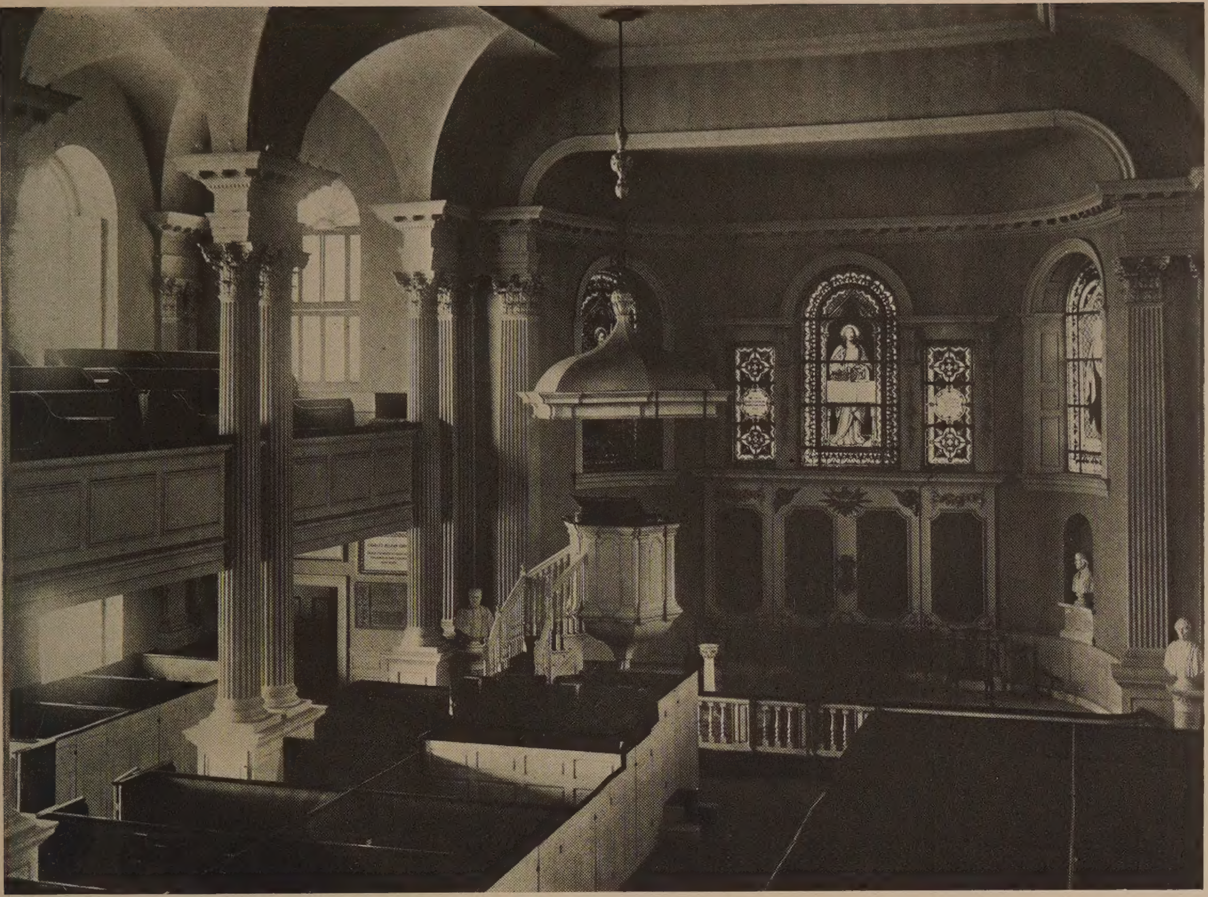
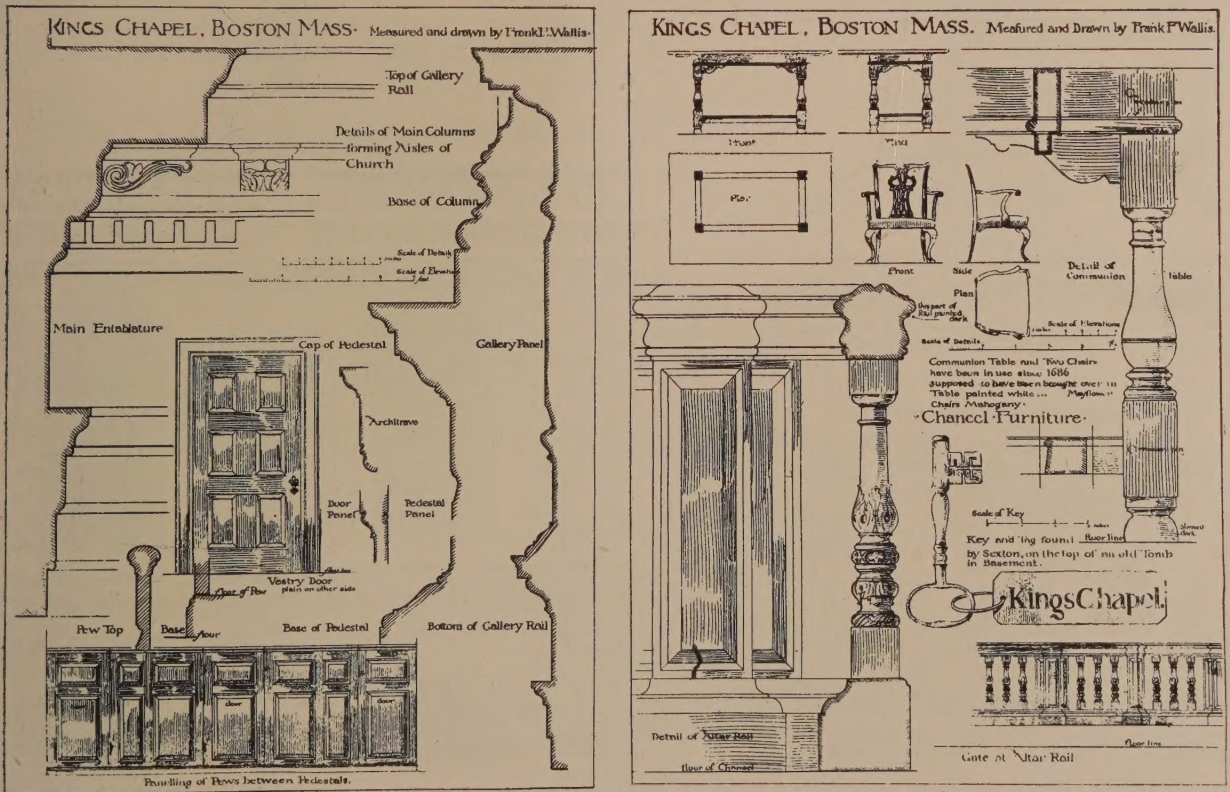
* None of these appears in the first catalogue of the Redwood Library, 1764, which shows Ware's "Palladio," Oakley's "Architecture," "The Builder's Directory," Price's "British Carpenter," and Smith's "Carpenter's Companion," works which Harrison does not seem to have employed.

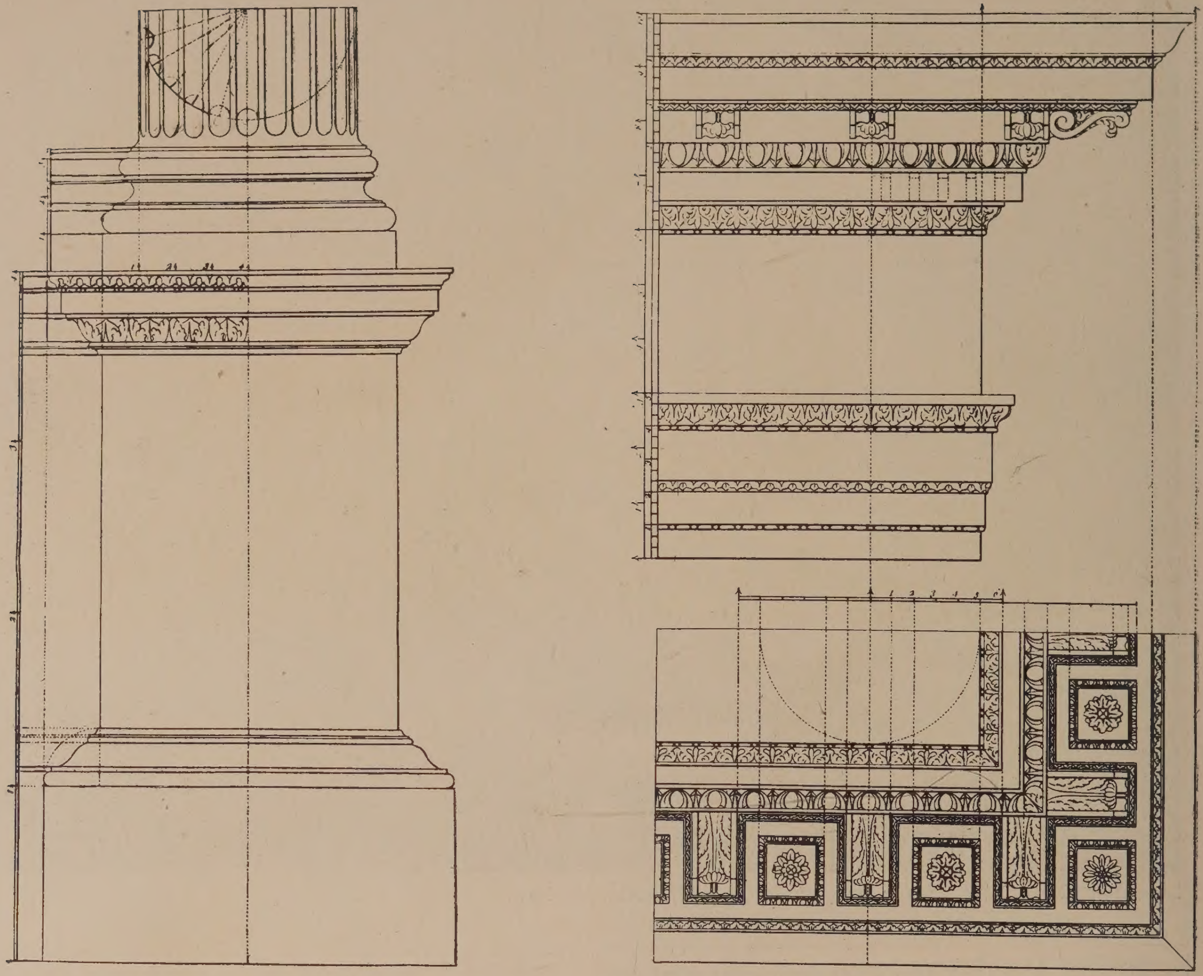


Interior of King's Chapel, Boston (1749–1754). Peter Harrison, Architect.

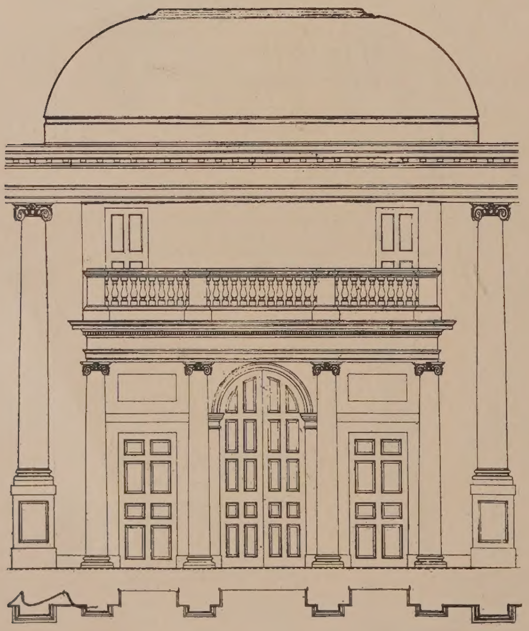


KINGS CHAPEL, BOSTON MASS. Measured and drawn by Frank E. Wallis.
Top of Gallery Rail
Details of Main Columns forming Aisles of Church
Base of Column
Scale of Details
Scale of Elevation
Main Entablature
Cap of Pedestal
Gallery Panel
Architrave
Door Panel
Pedestal Panel
Vestry Door plain on other side
Floor of Pew
Pew Top
Base
floor
Base of Pedestal
Bottom of Gallery Rail
door
door
Panelling of Pews between Pedestals.
KINGS CHAPEL, BOSTON MASS. Measured and Drawn by Frank E. Wallis.
Front
End
Plan
Front
Side
Plan
this part of Rail painted dark
Detail of Communion Table
Scale of Elevations
Scale of Details
Communion Table and Two Chairs have been in use since 1686 supposed to have been brought over in Mayflower. Table painted white ... Chairs Mahogany.
Chancel Furniture.
Scale of Key
Key and Tag found by Sexton, on the top of an old Tomb in Basement.
KingsChapel.
Floor line
Stained dark
Detail of Altar Rail
floor of Chancel
floor line
Gate at Altar Rail

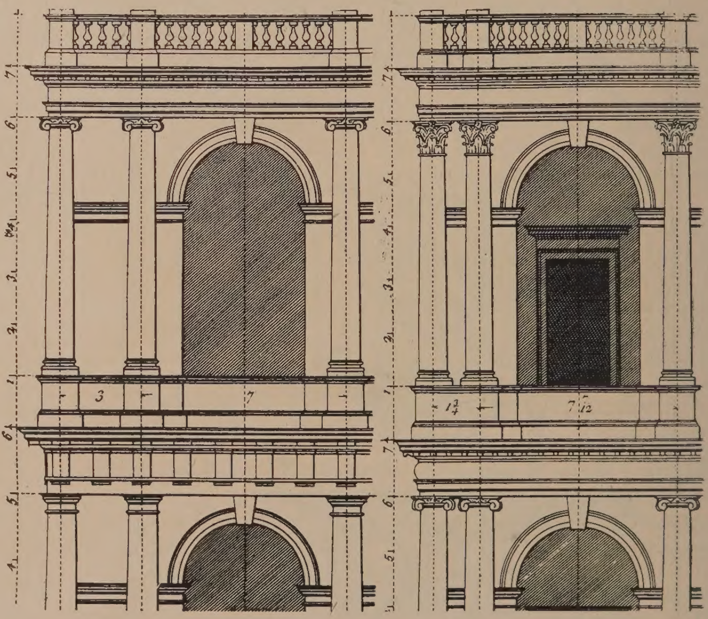
Interior details and profiles from King's Chapel (as illustrated in the Georgian Period).



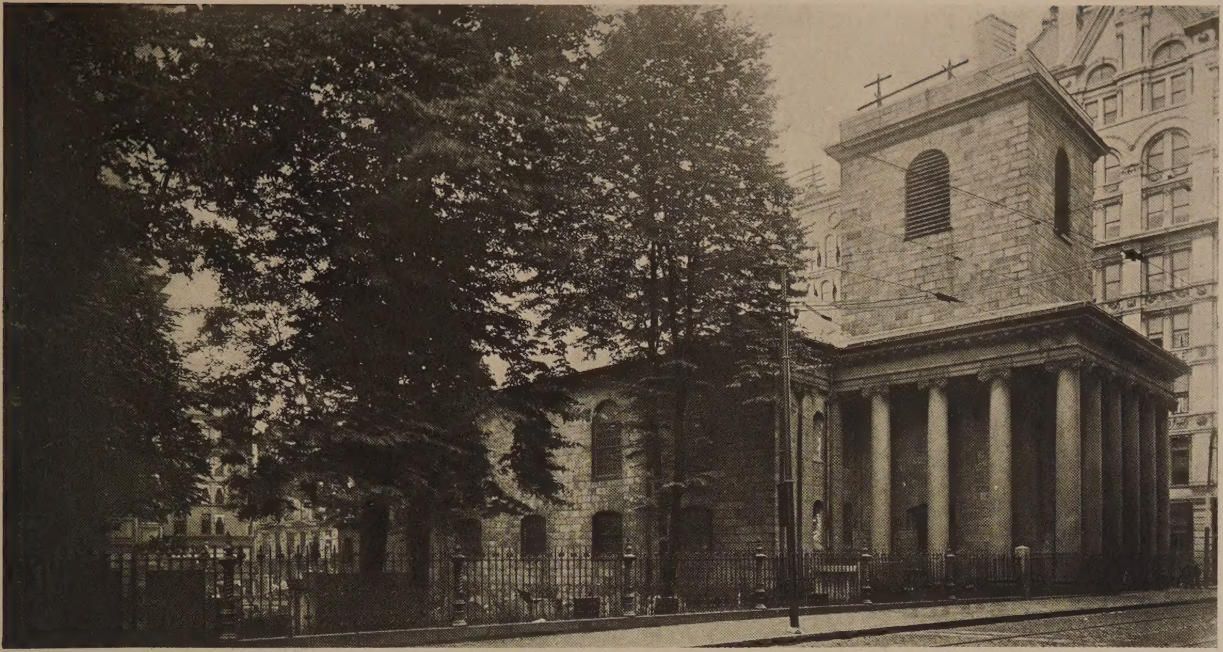
Gibbs's "Rules for Drawing," Plates XVI and XVII.



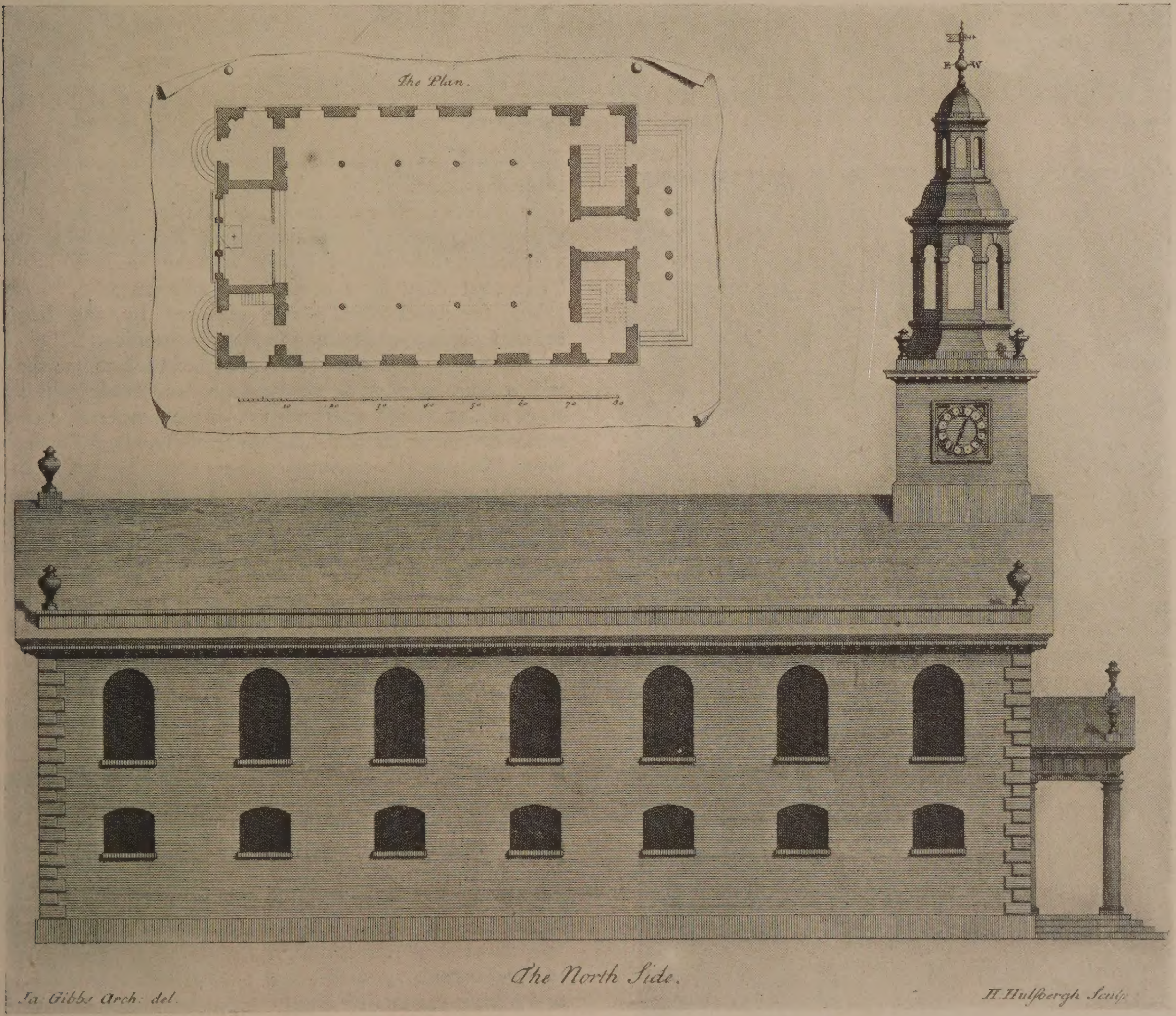
Section of Christ's Church, Cambridge (1761).
Peter Harrison, Architect.



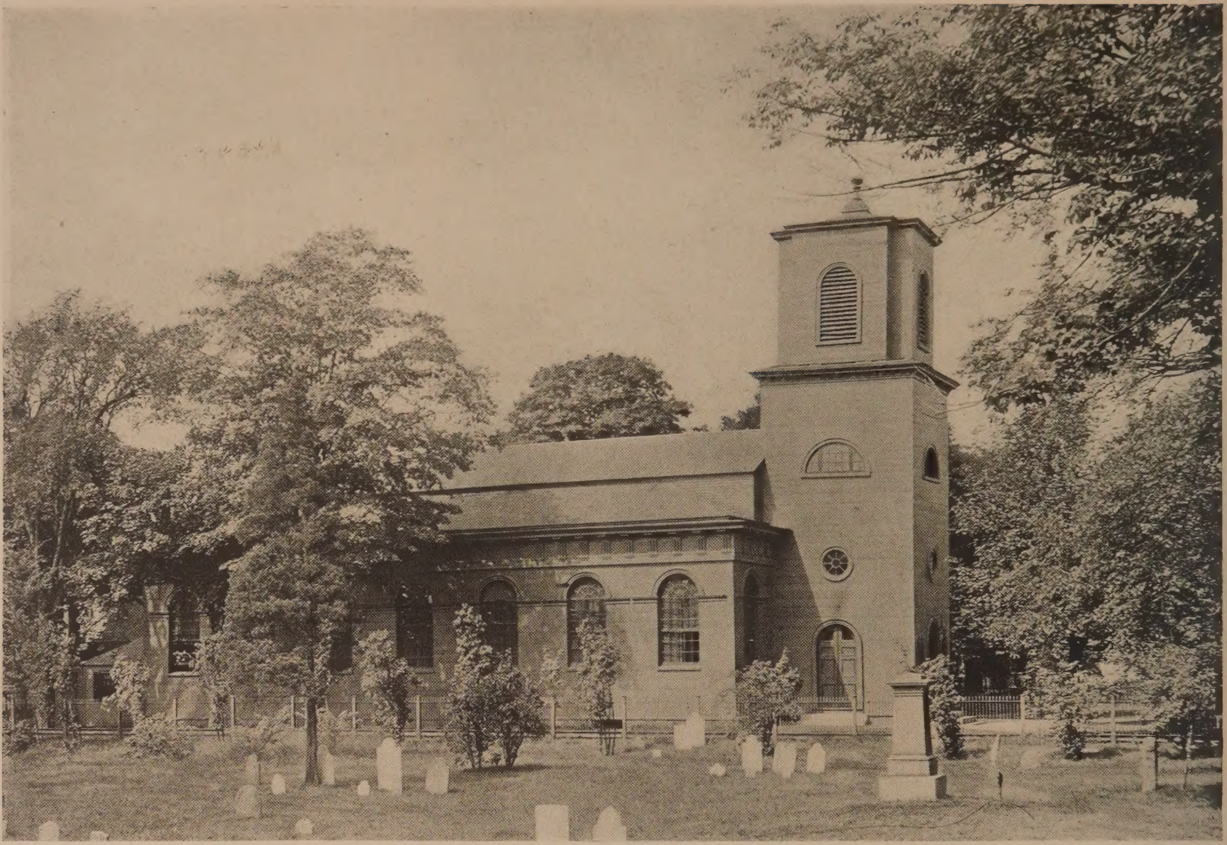
Harrison's chief model for the treatment of the organ-loft in Christ's Church. Gibbs's "Rules for Drawing," Plate XXXVI.



Exterior of King's Chapel, Boston (1749–1754). Peter Harrison, Architect. The portico around the tower was executed by Bulfinch in 1790. Photograph by Halliday Historic Photograph Co.



Harrison's model for the flank of King's Chapel. Gibbs's "Book of Architecture" (1728). Plate 24.



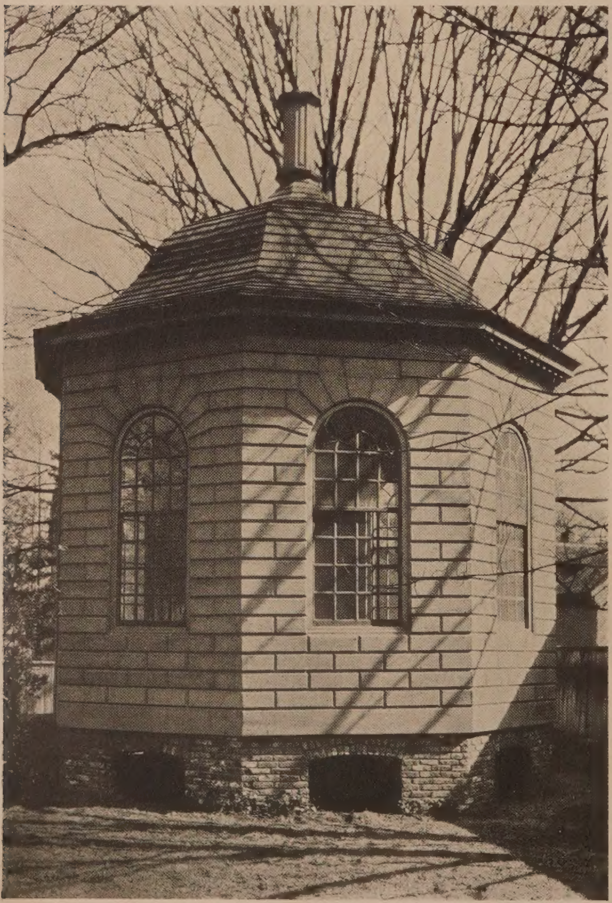
Christ Church, Cambridge (1761). Peter Harrison, Architect. Halliday Historical Photograph Co.

disappears. The broken and scrolled pediments which had been characteristic of such earlier Colonial houses as Westover and the Hancock house, and which still survived long afterward, gave way to self-contained, unbroken forms. The vernacular style of the followers of Wren—in buildings which, "but that they have roofs," as Jefferson said, "would be taken for brick-kilns"—was replaced by the large and ordered dignity of the temple and the basilica.

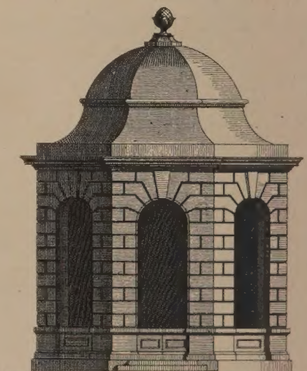
Throughout his life Harrison continued to use the books which were authoritative through his young manhood in England, or which conformed to the example of these. He never turned to manuals like those of Abraham Swan, issued after 1745, and soon imported to America, which brought the new freedom of the *rocaille*. In this he was like one of his own authorities, Isaac Ware, who in 1756 continued to uphold Palladianism in England, and only executed under protest the *rocaille* ceilings demanded by his patron, the Earl of Chesterfield.

Within the general limits there was still room, as always, for personal individuality and for work of genuine artistic value. Both involve a power to weld derivative elements into a vital unity. We feel such a unity and value in Harrison's work. Despite his scholarly character, it does not smell of the lamp. "Massive dignity and sensitive refinement" is well said. Repose and suavity of proportion, a musical harmony, make it live and give it distinction unique in the Colonial work.

(*Concluded on page 209*)



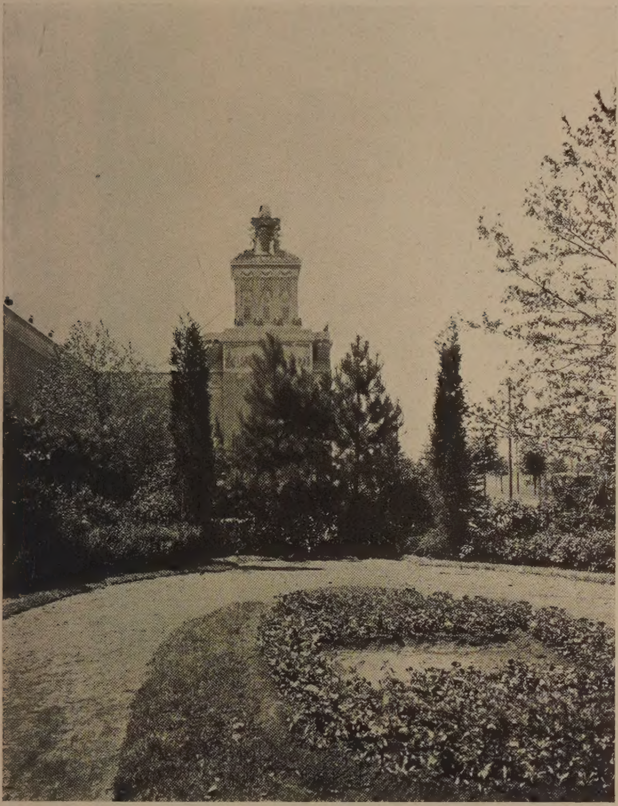
Summer-house from Redwood Estate, now in the grounds of the Redwood Library. Photo by J. Rugen.



Harrison's model for the Redwood Summer-house. Gibbs's "Book of Architecture," Plate LXXX.

The Fine Arts at the Sesquicentennial

PHILADELPHIA'S Sesquicentennial Celebration promises to be worthy of high praise, and while the general architectural effect may lack any great distinction such as has marked other of our great expositions, there is yet a quiet dignity and reserve about many of the buildings that is restful and an agreeable contrast to the ordinary display architecture. Many of them are enlivened by a liberal use of color. To thousands, no doubt, the Fine Arts Building, with its assemblage of paintings, sculpture, etc., from all over the world, will have the first appeal. Alexander Bower, the director of fine arts, himself a painter of distinction, assures us that the exhibition will be comprehensive and unusual. His present anxiety seems to be a fear of a lack of wall space to show all the exhibits that have been offered. The avowed purpose of the Fine Arts Department will be to stimulate public interest in the graphic and plastic arts, and to emphasize the need of an interest in æsthetics in every-day life.


Tower, Palace of Agriculture.

In general the exhibition will be divided into four sections. There will be an historical section which will serve to trace the contribution of Philadelphia and Pennsylvania to the development of painting and sculpture since the signing of the Declaration of Independence.

Another group is being arranged to include a contemporary international section, in many cases under foreign governmental supervision. Artists from Spain, Japan, France, Germany, Italy, Czechoslovakia, Jugoslavia, Persia, and Egypt have promised contributions, and it is hoped that other nations will take part also.

The most extensive division will be the exhibition of contemporary American works. This will be the most important showing of its kind which has been held since the San Francisco Exposition in 1915, and will present examples of the work of practically all of the American artists who have led in creation during the last twenty-five years.

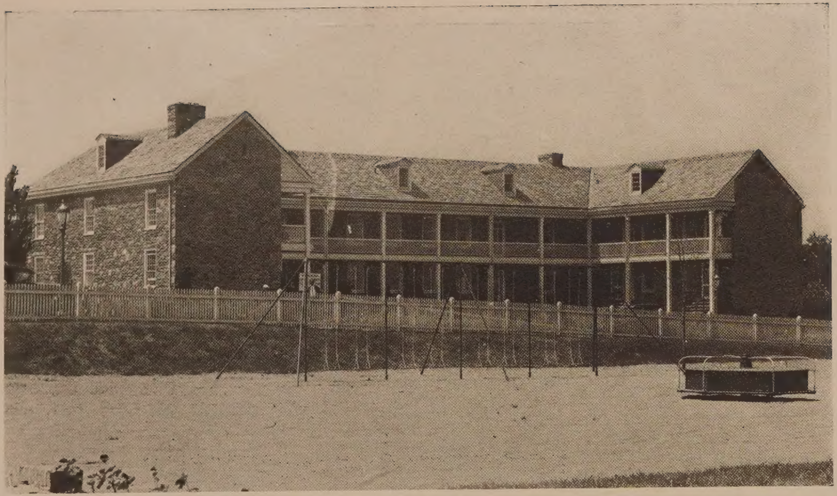
The fourth group will include a section of works not contemporary.

Thus the exhibits in the building will consist principally of paintings, of sculpture, and of prints, but to these will be added some textiles, wrought metal work, and ceramics. The display of outdoor sculpture, both American and foreign, will be very comprehensive, including in its range important works of Auguste Rodin, Ivan Mestrovic, and others.

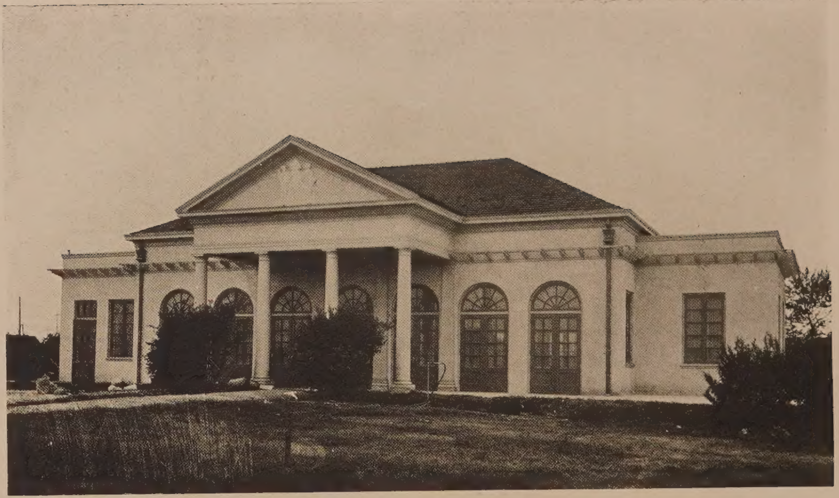
Of particular interest will be the print department, in which will be installed an etching press, a lithographic press, and a wood-block printing-press. Artists of established reputation will come to the Exposition as its guests and will make etchings, lithographs, and wood-engravings from subjects within the Exposition grounds or from the city of Philadelphia. These will be created in a glass-enclosed studio under the eye of the public, with the purpose of demonstrating the possibility of a man of average means possessing pictures of real æsthetic value, either in black-and-white or in colors.

The Fine Arts Building is built around a central open court, 120 feet square. The galleries on the rear of the court will be extended both to the right and left beyond the square, so that the entire building will have the shape of the letter "T" with a much-thickened stem. The area of the building under roof is approximately 70,000 square feet, and there are nearly 1¼ miles of wall space in the 60 galleries. Architecturally the structure is extremely simple, since its function is merely that of a background and a protection for the exhibits themselves. Its contour assures the best lighting and ventilation and a maximum of space.

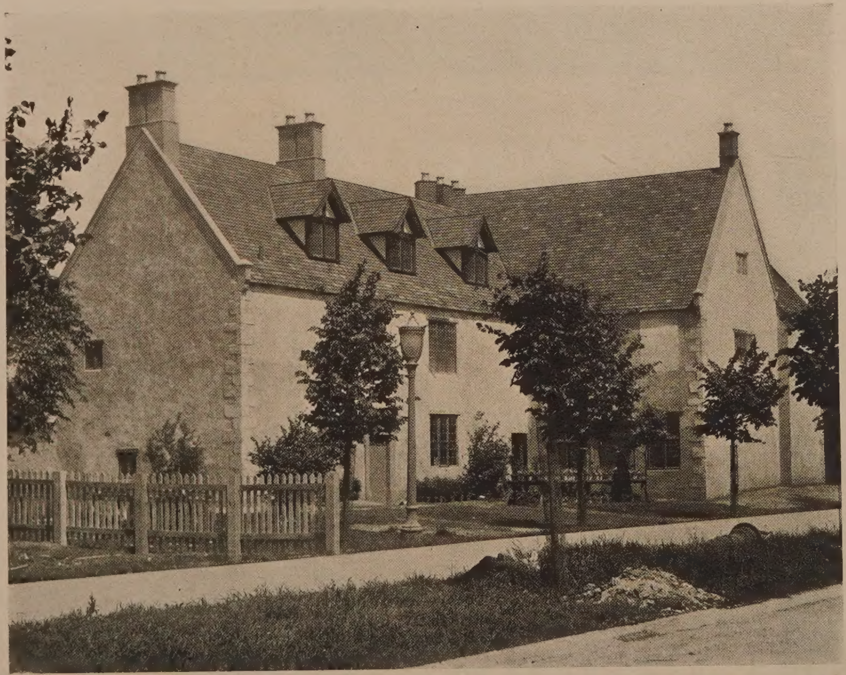
Doorway, Palace of Liberal Arts and Manufactures.



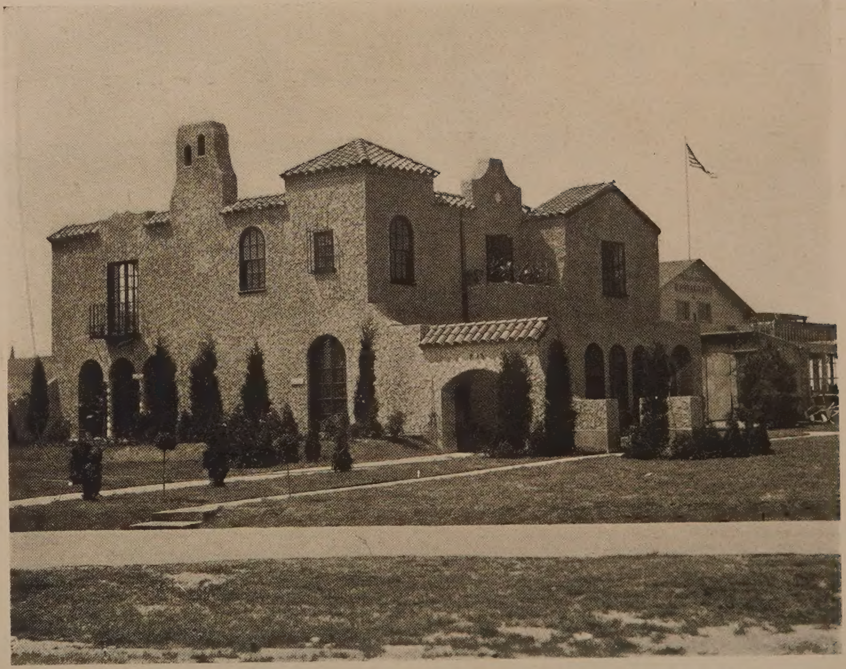
New Jersey Building. Reproduction of the Old Hessian Barracks at Trenton, N. J.



The Delaware State Building.

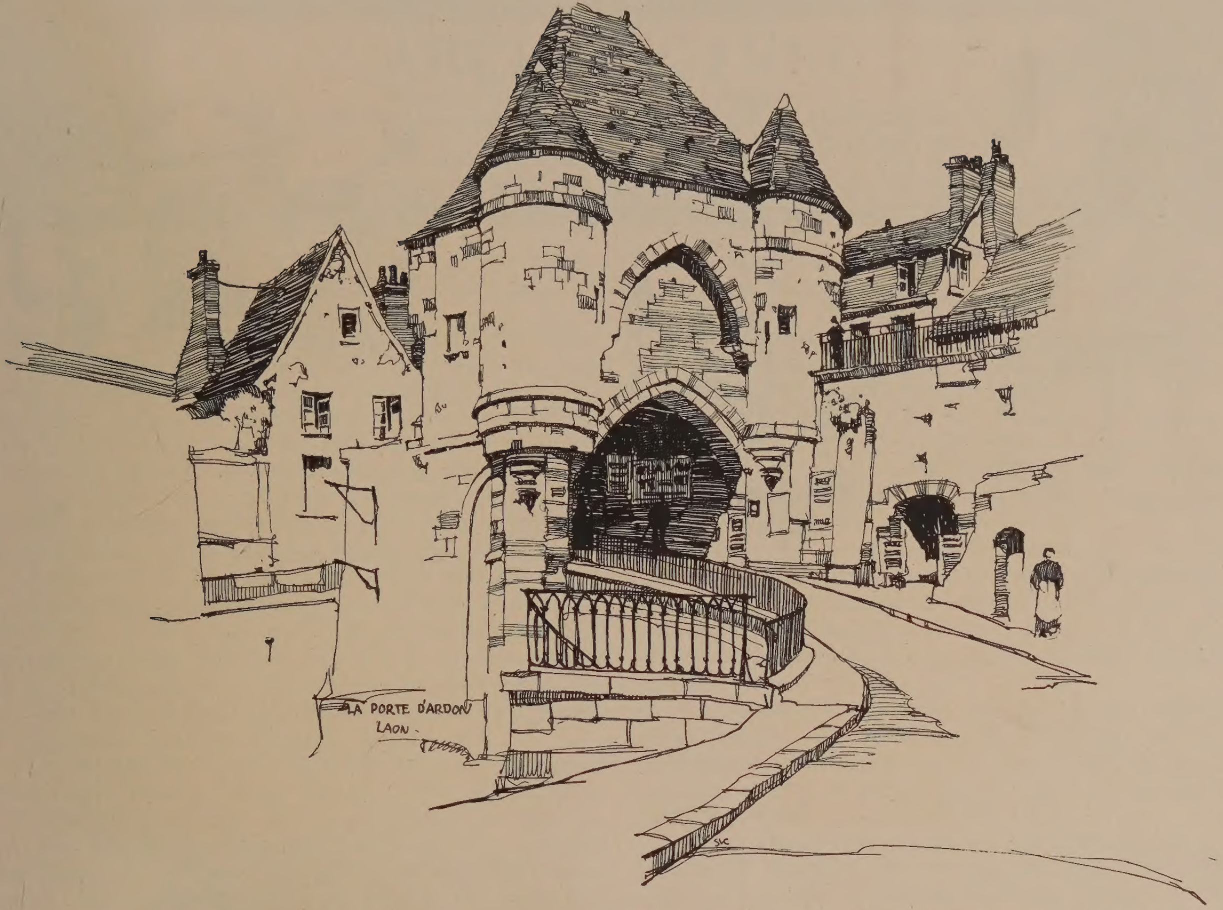


Sulgrave Manor, the ancestral home of the Washington family in England. Reproduced by the Colonial Dames of America.

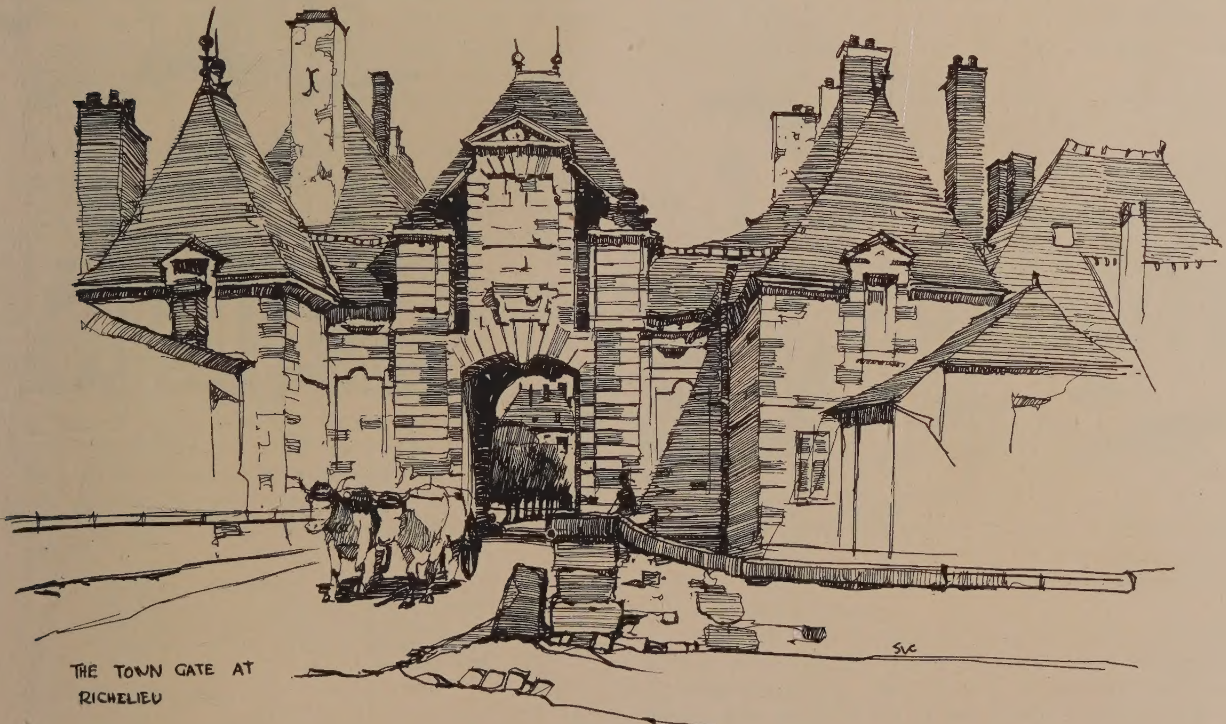


Home Electric. Showing all the latest electrical household devices. By the Westinghouse Electric, General Electric, and the Philadelphia Electric Companies.

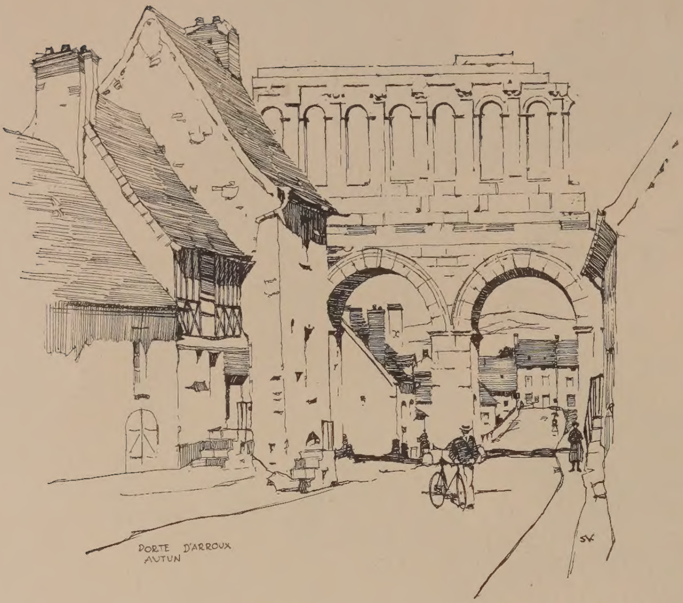
SOME OF THE SMALL EXHIBITION BUILDINGS AT THE PHILADELPHIA SESQUICENTENNIAL EXPOSITION, 1926.



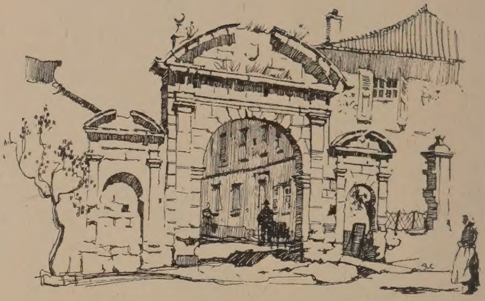
Laon, perched up on its dizzy plateau, is a city of many gates. The Porte d'Ardon justifies its appearance of a feudal stronghold by guarding one of the main approaches to the city.



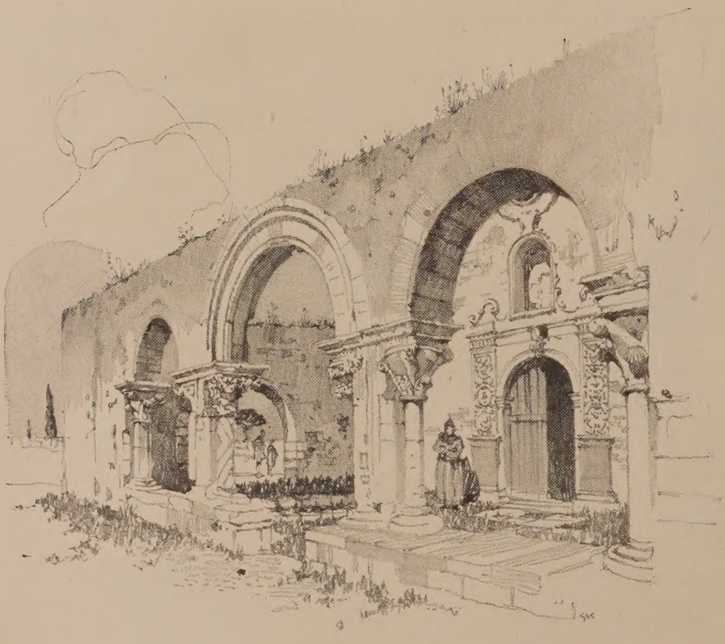
This strange little town, named after and largely built by the cardinal who played such a prominent part in French history, still remains behind the same muddy moat and weather-beaten walls. From the original drawings by Samuel Chamberlain.



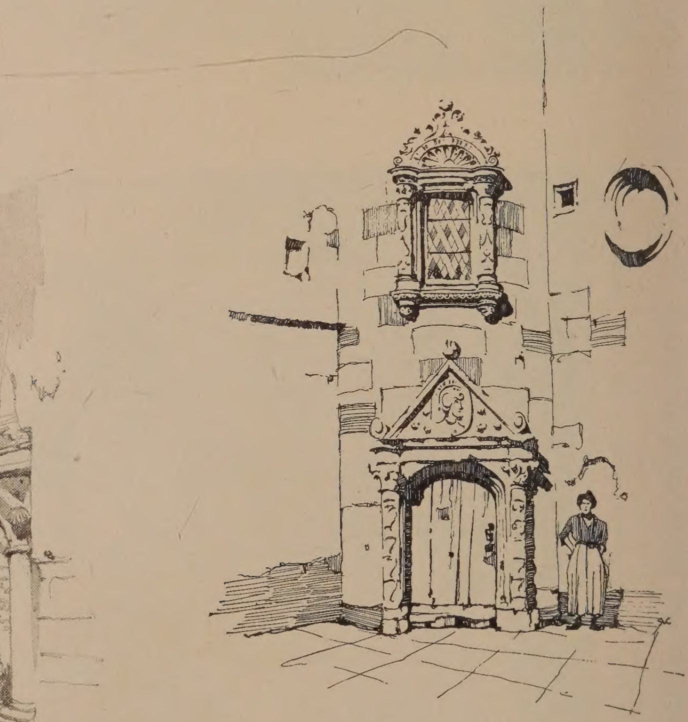
PORTE D'ARROUX
AUTUN



A GATEWAY NEAR BAR-LE-DUC



CHURCH OF S. GIOVANNI DELLE CATACOMBE
SYRACUSE



DOORWAY IN THE
HOTEL LALLAMANT
BOURGES

From the original drawings by Samuel Chamberlain.

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Editorial and Other Comment

The Light That Never Was, on Sea or Lana

THE Players' Club performance of Henry IV with a cast that included such famous players as John Drew, Otis Skinner, Blanche Ring, William Courtleigh, James T. Powers, and others, was lighted in a manner never before known in the theatre. From the official statement we quote as follows, giving some idea of the effects obtained:

"By means of the new devices it is possible to flood the stage with more than eight times as much light as has ever been used before. This has been proved by a series of actual photo-metric tests made on the Knickerbocker stage. This intense light is obtained nevertheless without shadows or harshness. Color values are so true that actors need not wear make-up unless they wish. Faces and costumes can be made to appear exactly as they do under daylight. The corpse-like, harsh-outlined appearance of an actor's features under the usual theatrical spotlights is prevented.

"On the other hand, color light may be used even more perfectly than before to obtain desired effects. The scenery for the Players' production was designed by the well-known artist, Mr. Charles B. Falls, and associates. For sunlight scenes this scenery is flooded with light indistinguishable from sunlight. For moonlight scenes the rays of the moon are successfully imitated.

"The most important item of the new lighting devices is a novel reflector and shield. This is constructed of pure sheet aluminum, a metal remarkable for its combination of light weight and great strength. Chemically pure metal is used, its surface being treated by a special process to reflect ninety-four per cent of the reflection of light rays from a perfect mirror.

"The colors called for by the production are obtained by special light-filters of new type. These filters remove from the light rays the particular colors which are not needed, allowing only the desired colored rays to pass through and to fall on the scene or the actors. The light-filters used have been tested and corrected by a special scientific instrument called the spectrograph, which instrument indicates at a glance just which one of the color rays is allowed to pass through."

It is a far cry from the rush-lights of Shakespeare's time, when the Globe was London's popular playhouse, to the marvels of modern electrical invention.

We'll all be rereading our Shakespeare, though many of us have found the historical plays rather hard going at times. Here is something to the point from this same King Henry IV, Part II:

> When we mean to build,
> We first survey the plot, then draw the model;
> And when we see the figure of the house,
> Then must we rate the cost of the erection.

And here is another:

> An habitation giddy and unsure,
> Hath he that buildeth on the vulgar heart.

New Building by the Government

THE new building programme announced by the government includes the expenditure of $50,000,000 in the District of Columbia and $115,000,000 outside.

Washington will have an Archives Building to store the great mass of government records accumulated during 150 years. This will cost $6,900,000, including the land for it, and for the first year's expenditure on actual construction the amount allocated is $1,000,000.

There will be also a new building for the Internal Revenue Bureau of the Treasury Department, whose growth has been so tremendous on account of the income tax and prohibition enforcement administrations. This will cost $7,950,000, including the site, and $1,700,000 is allocated for the first year of construction.

A rented building now occupied by the Agricultural Department is to be purchased, the central part of the present Administration Building is to be completed, and there is to be a new central office building, at a total cost of $8,075,000, with $1,925,000 expended the first year.

Long Island City, Syracuse, and Yonkers are to have new public buildings. So are Bayonne, East Orange, Montclair, and Newark, as well as Branford, Conn.

The character and placing of the new Washington buildings is a matter of serious concern to every architect in the land, and the American Institute of Architects in their recent session in Washington went on record in no halting terms regarding the Public Buildings Bill that threatens to seriously impair the beauty of L'Enfant's plan.

An amendment has been proposed prohibiting the erection of large department structures around Lafayette Square, on which the White House faces.

Passing the Good Word Along

WE have been much gratified by a number of requests for the little pamphlet referred to in the letter from Mr. Klenke in the May number. It was called "Build or Buy," and told in plain and convincing terms the advantages of employing an architect in the designing and building of the house.

It made it evident that having the advice and friendly counsel of an architect was a distinct gain from every point of view.

The things Mr. Corbett is writing about in *The Saturday Evening Post*, reaching an immense audience, ought to do a lot of good for the architects all over the country. He is doing them all a service in making them better known to the man in the street.

The ethics of the profession do not permit the architect to use show-bills and brass bands, or display-pages in the journals of culture. No, he is a modest and retiring man with a soul given to art, in the minds of a lot of folks, who from such a conception gather that the architect is more of an ornament than a help. We shall have a number before long that will show the work of a group of architects, and what they can do in building a model town. The houses will exhibit a wide variety of design and materials and represent the work of men nationally known for the excellence of their small house designs.

The architectural magazines are, of course, doing all they can to make the work of the architects more generally known, but their good work needs to be supplemented by the popular journals and the passing on of the word through the medium of the local chapters of the Institute.

The real-estate people are doing their part in helping to sell the architect, and the Sunday papers, with their pages of model houses and things when they are kind enough to really give the name of the architect, deserve to be highly commended.

The Allied Architects of Washington

THE following reply to Mr. Waddy Wood's comments in a recent number appeared in *The General Conditions*, published by the Washington, D. C., Chapter of the American Institute of Architects:

"Mr. Editor:

"May I add a word to a previous casual news item which precipitated an unexpected onslaught in the last bulletin by our well known and much liked Dissenter?

"Many of the arguments advanced against the Allied Architects' modus operandi are specious because they ignore facts. What's the difference in fact between Wood, Steel & Cetera, architects; or the Bringer Associates; or Smith & Brown, Inc.—and the Allied Architects? Probably the majority of the large architectural organizations of the country are allied architects in miniature, with known or silent partners. Frequently the individuality of the partners becomes transmuted into the personality of a firm. Even our friendly Dissenter once belonged to such a firm. The fact that the firm split is no argument against partnerships, whether of three or thirty—nor against Allied Architects.

"Take the case of a corporation. Most corporations get along fairly well. Some even produce pretty good work of one sort or another. How do they do it with a lot of stockholders? Just as the Allied Architects do—by delegated authority. This idea of thirty-five architects each throwing his own favorite food into the pot to make a Brunswick stew is an amusing idea, but the actual process has more to do with separating wheat from chaff.

"The idea of collaborative reasoning is not altogether new. There is an institution known as the Supreme Court, which also does fairly well in reaching conclusions without unseemly "clamoring" each for his own idea. Sometimes there are differences of opinion, but in the end one member writes the opinion for the group.

"It is unfortunate that opportunity was not given the author of the argument in the last *Bulletin* to correct perfectly obvious misinterpretations of my quite harmless item—harmless, but not misleading. For example, concerning the proportion of Allied members to chapter membership and 'closer-working harmony,' it may be said (1) that general invitations were issued to the entire chapter; (2) that the Allied membership constitutes practically the entire active chapter membership; (3) that the Allied has brought into activity chapter members who never before manifested interest in chapter activities; (4) that the Allied work has brought all these chapter members—the active majority—into closer contacts, given them higher appreciation of each other's ability, broadened their viewpoints and strengthened their position, thus really bringing them into 'closer working harmony' than any previous general chapter interest.

"The second point of the letter merely tends to stir up ill feeling without foundation. 'Thirty-five of the ablest practitioners' is plain English and means exactly what it says—that of the ablest practitioners, thirty-five are associated. There is not the slightest implication that of the non-members there are not just as many, or more 'ablest.'

"The real truth about the Allied, Mr. Editor, is that it does check individuality—but only of a man who cannot stand up before his peers and present plans founded on sound reasoning. Too many times, as every architect knows, plans expressing much individuality—too much individuality—have been put across on unsuscepting clients. The public interests will be better served by plans that have run the gauntlet.

Horace W. Peaslee,
Secretary, *Allied Architects*."

Mr. Peaslee adds the following in a letter from which we have his permission to quote:

"Notwithstanding the statements made in Mr. Wood's letter, and also in the quoted report of the directors, our conclusions, after active participation in the work of one allied association, are that there has resulted extension of, rather than encroachment upon, the freedom of the individual practitioner. The experience of the Washington group to date has not developed the disadvantages or dangers cited in the Board report. There has been no lobbying or undue activity in connection with the getting of work. In each case there has been only a formal tender of service. Instead of cutting off individual opportunity, there has been extension of the same, opportunity having been given for participation to men who would never, otherwise, have had any opportunity whatsoever; and this participation has unquestionably reacted to their benefit.

"The question of personal responsibility has been met by delegated authority, which in each case has narrowed down to one or two individuals.

"There has been no advertising, and no 'hired agents.' There has been no effort whatever by the architects who are affiliated with the Allied to participate in chapter policies as a group, and there is no evidence or occasion for the slightest feeling between those who joined the Allied and those who did not."

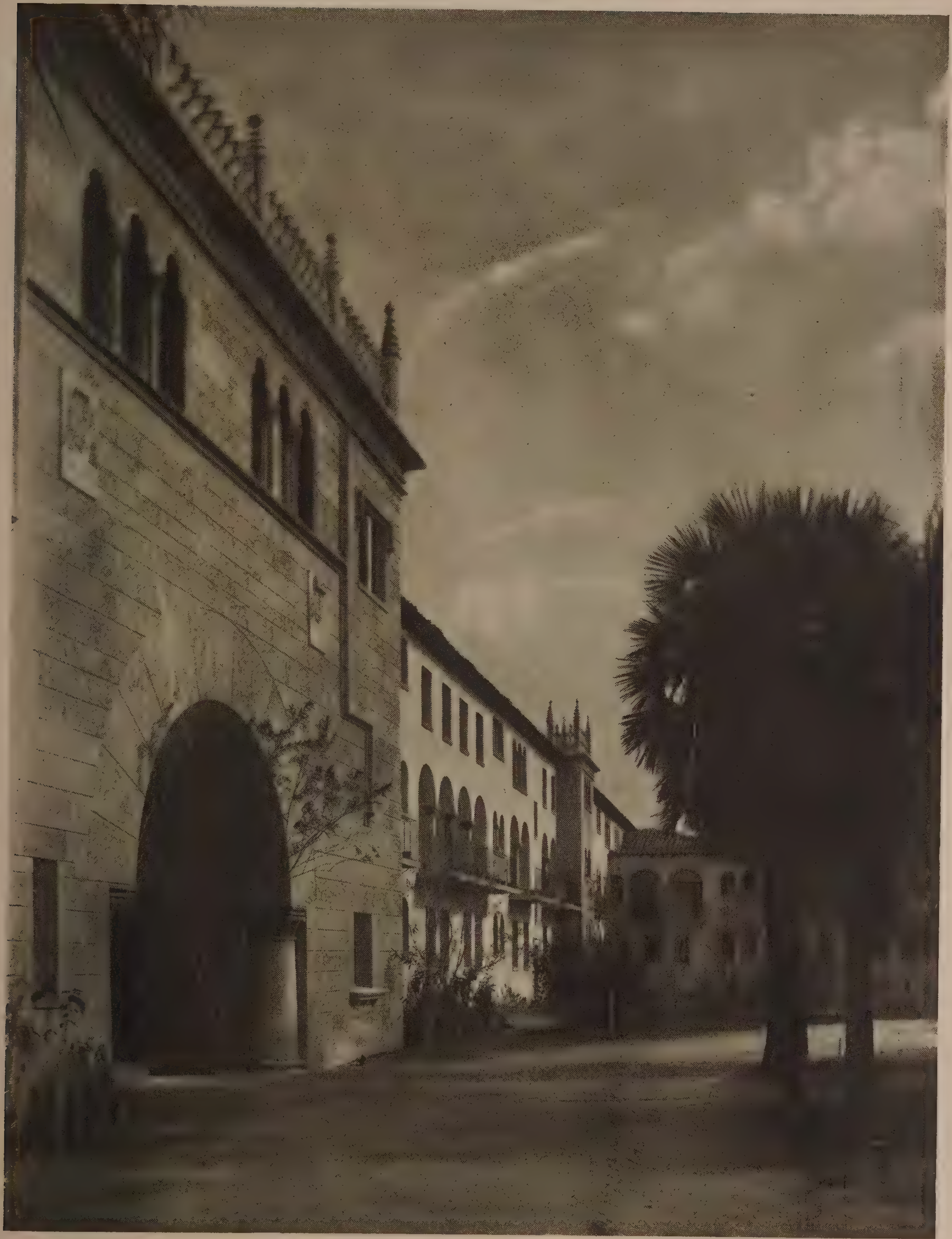
Winner of the Prix de Rome

THE annual award of the Prix de Rome in architecture was made in the Grand Central Art Gallery by representatives of the American Academy in Rome. The winner of the prize was Clarence D. Badgeley, of Springfield, Ohio. Mr. Badgeley is twenty-seven years old. From Ohio State University he came to Columbia, where he received the B. Arch. degree.

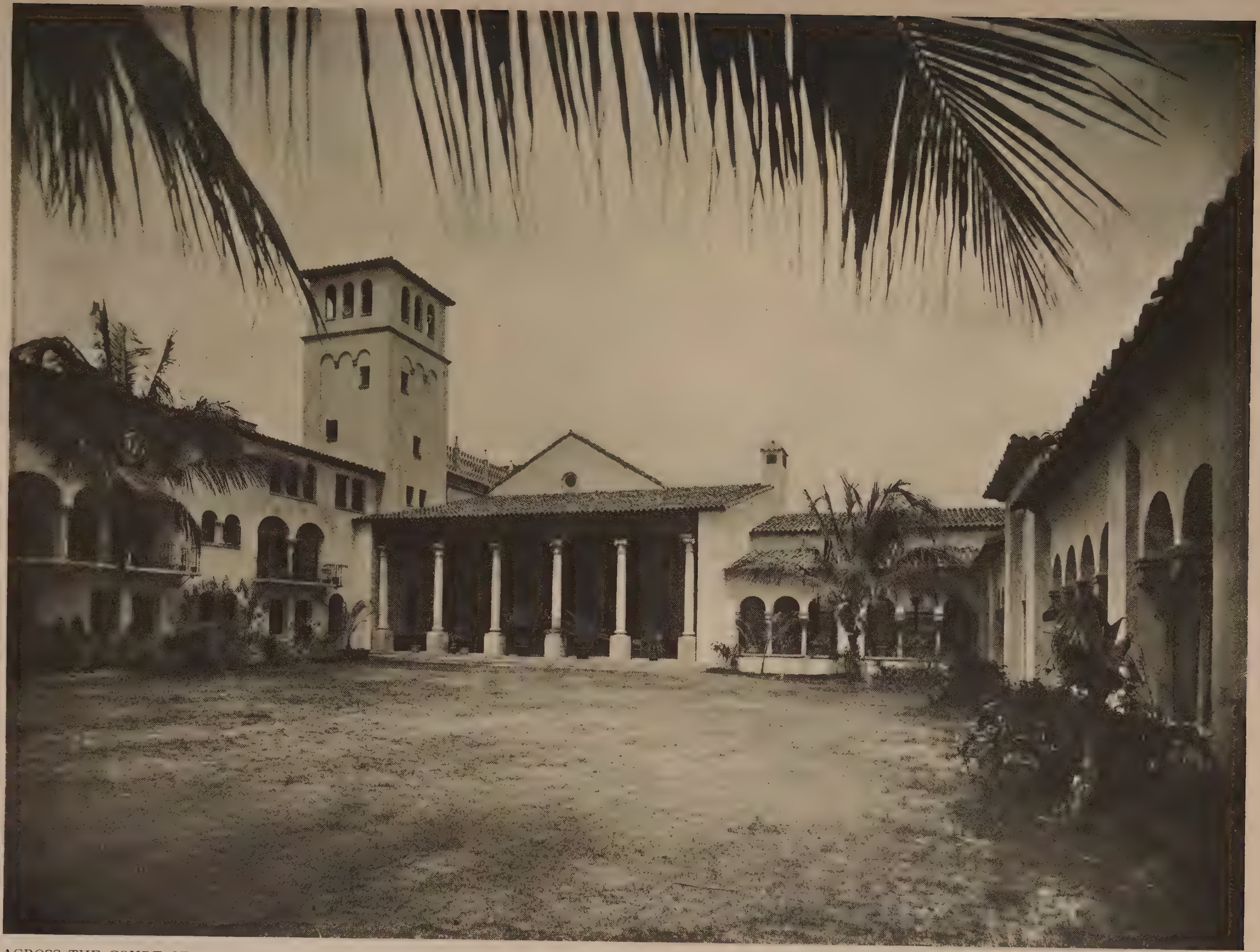
Homer F. Pfeiffer of Yale University received honorable mention.

The subject on which the award was based was a monumental wall treatment and fountain terminal to a parkway vista. The winner receives $1,300 a year for three years' study and residence at the academy in Rome.

Six contestants were selected from a large number of applicants. They included D. V. Breret, of Cornell; P. F. Taylor, of Princeton; V. Viscariello, of Armour Institute, and J. W. Wood, Jr., of Harvard.

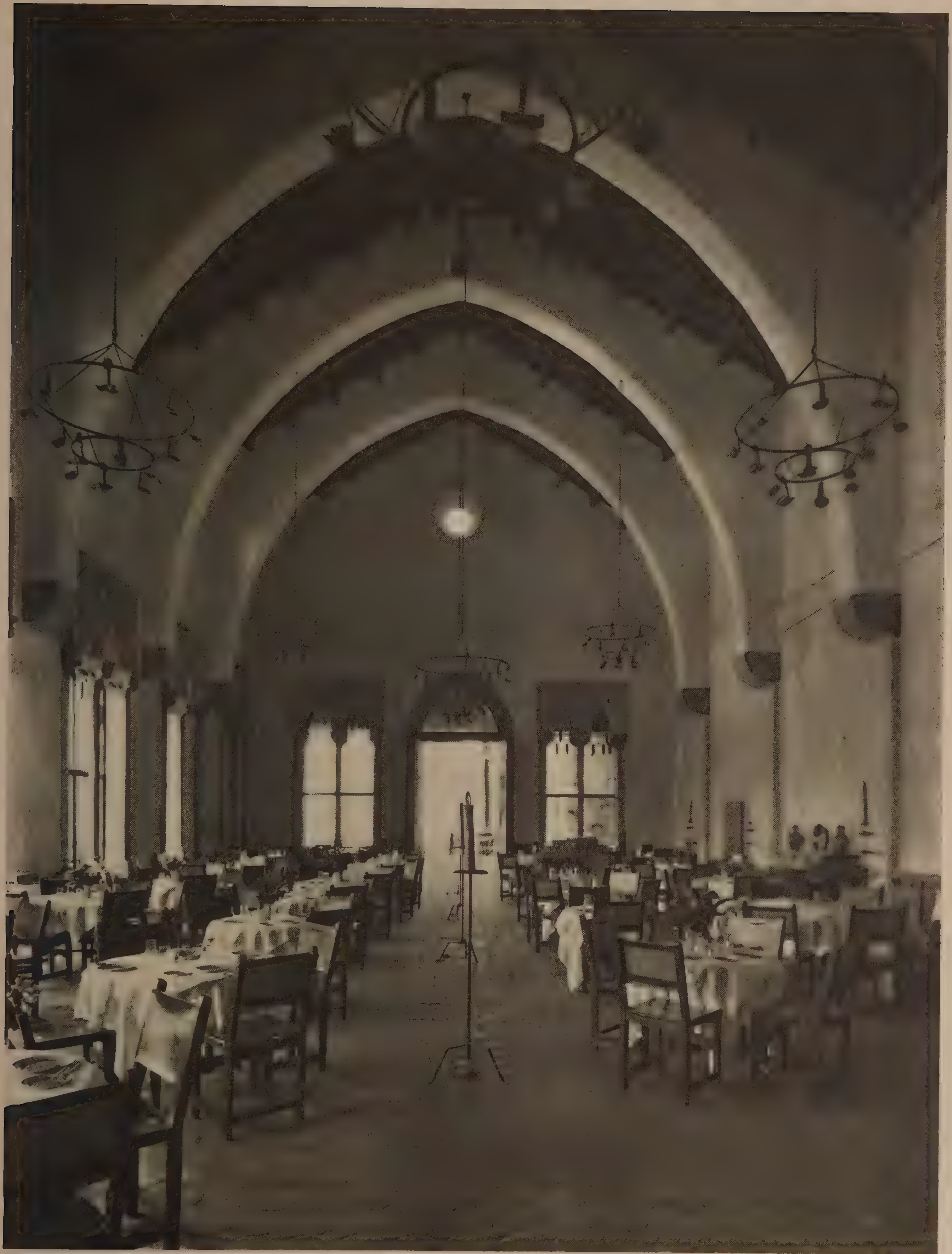


RITZ-CARLTON CLOISTER, BOCA RATON, FLA. The arched doorway leads into the lobby. Addison Mizner, Architect.



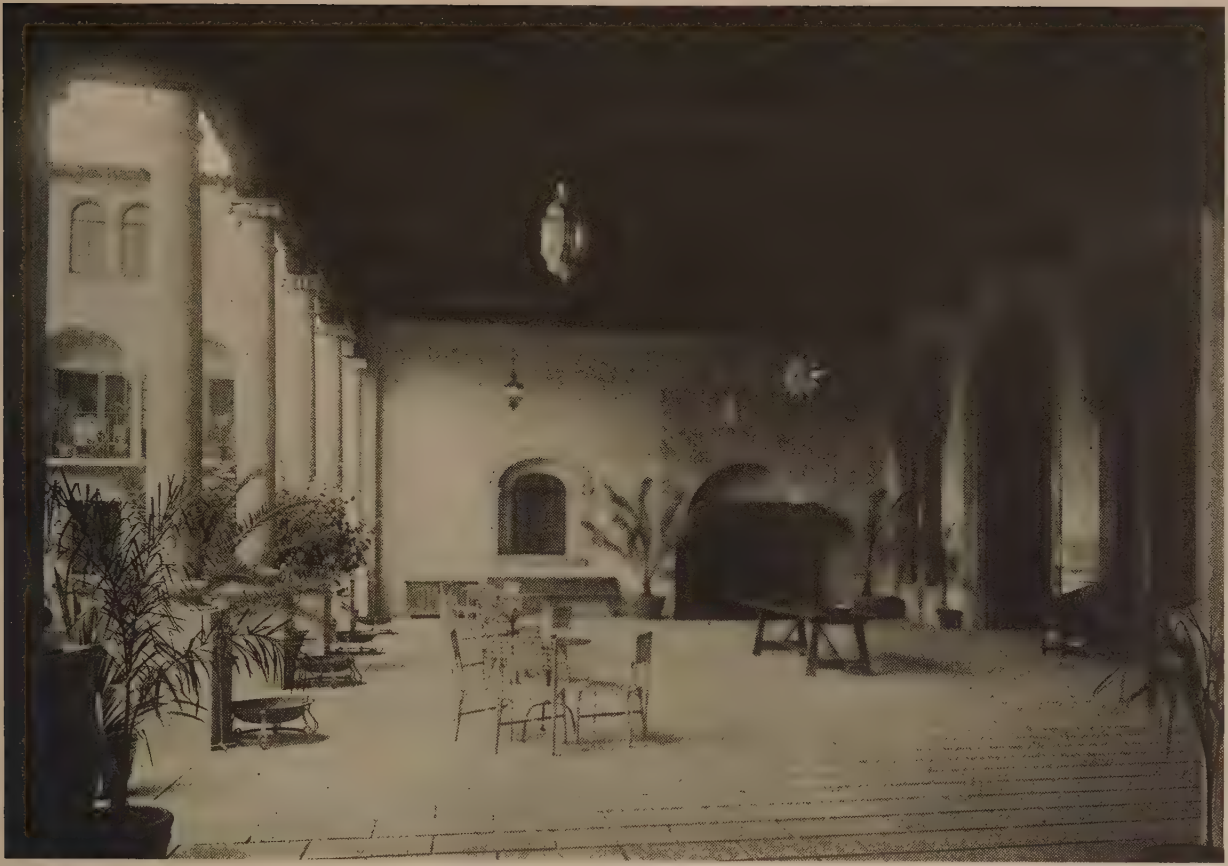
ACROSS THE COURT OF PALMS TO THE LOGGIA AND TOWER, RITZ-CARLTON CLOISTER, BOCA RATON, FLA.

Addison Mizner, Architect.

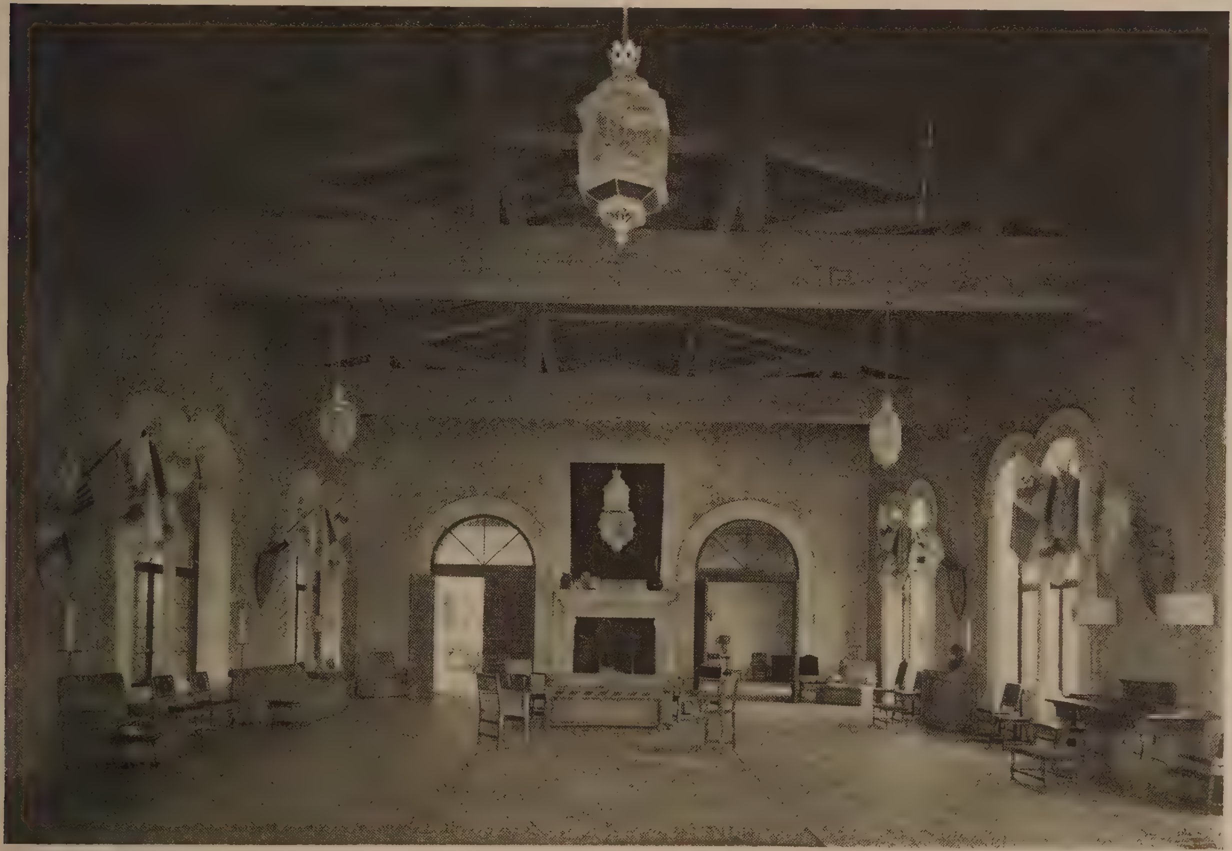


THE DINING-HALL, RITZ-CARLTON CLOISTER, BOCA RATON, FLA. Addison Mizner, Architect.

Inspired by the fifteenth-century hospital at Vich, in Catalonia.

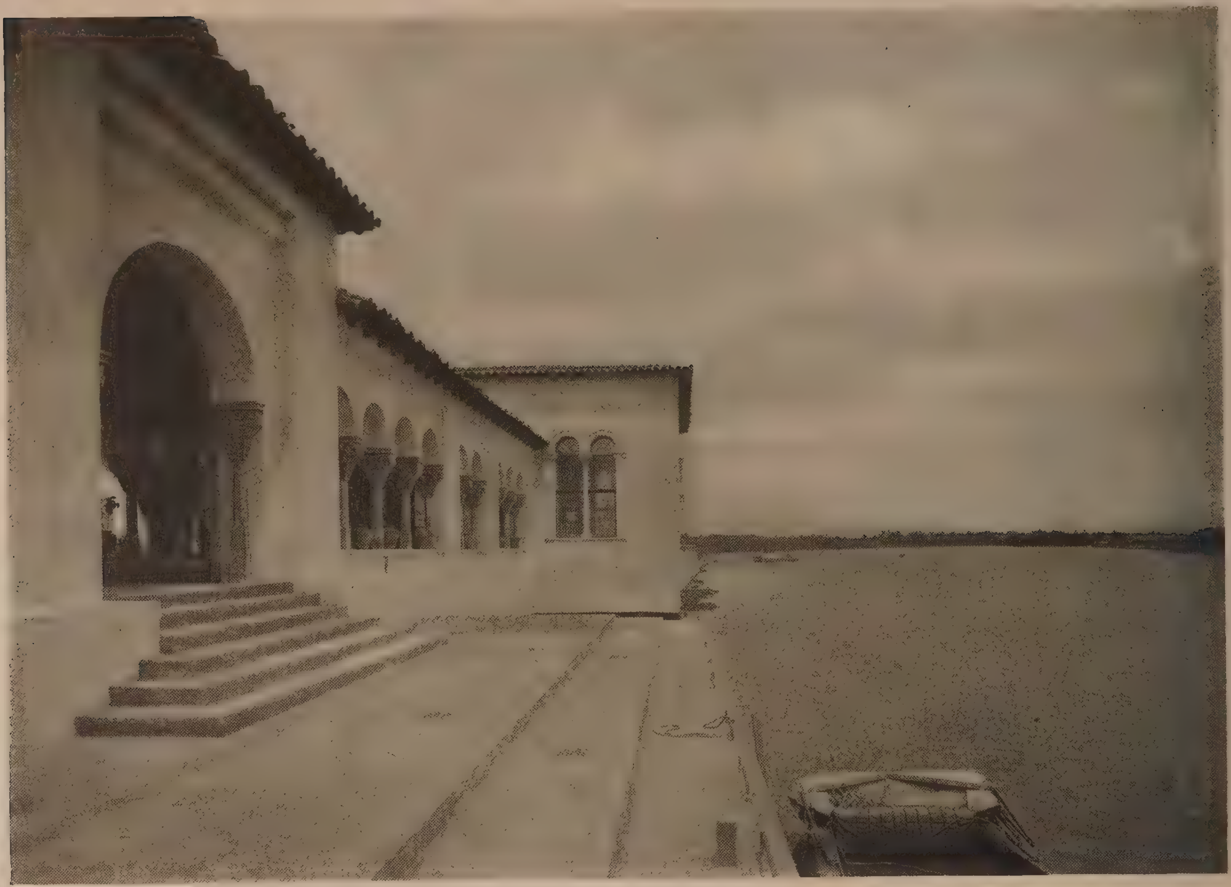


THE LOGGIA. The doorway leads into the lobby.

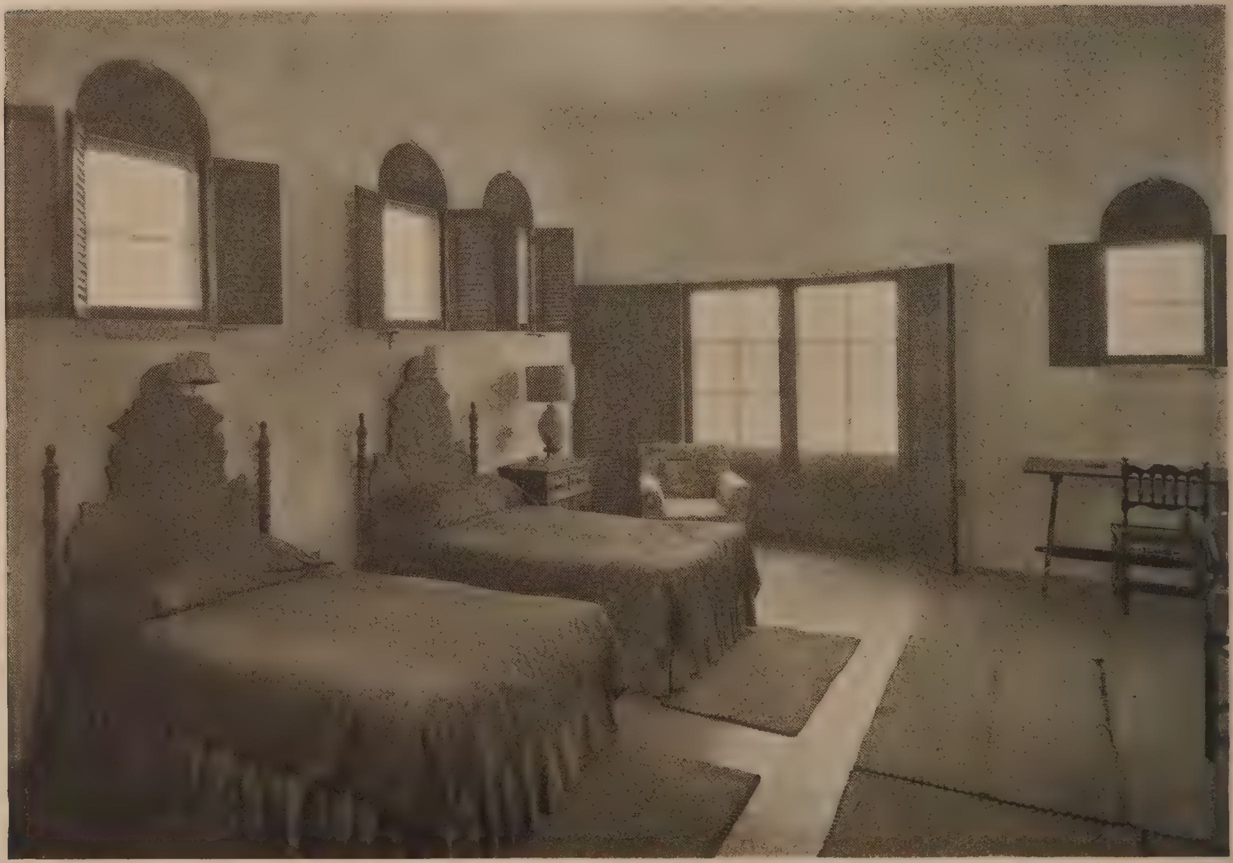


THE LIVING–ROOM. Addison Mizner, Architect.

RITZ–CARLTON CLOISTER, BOCA RATON, FLA.

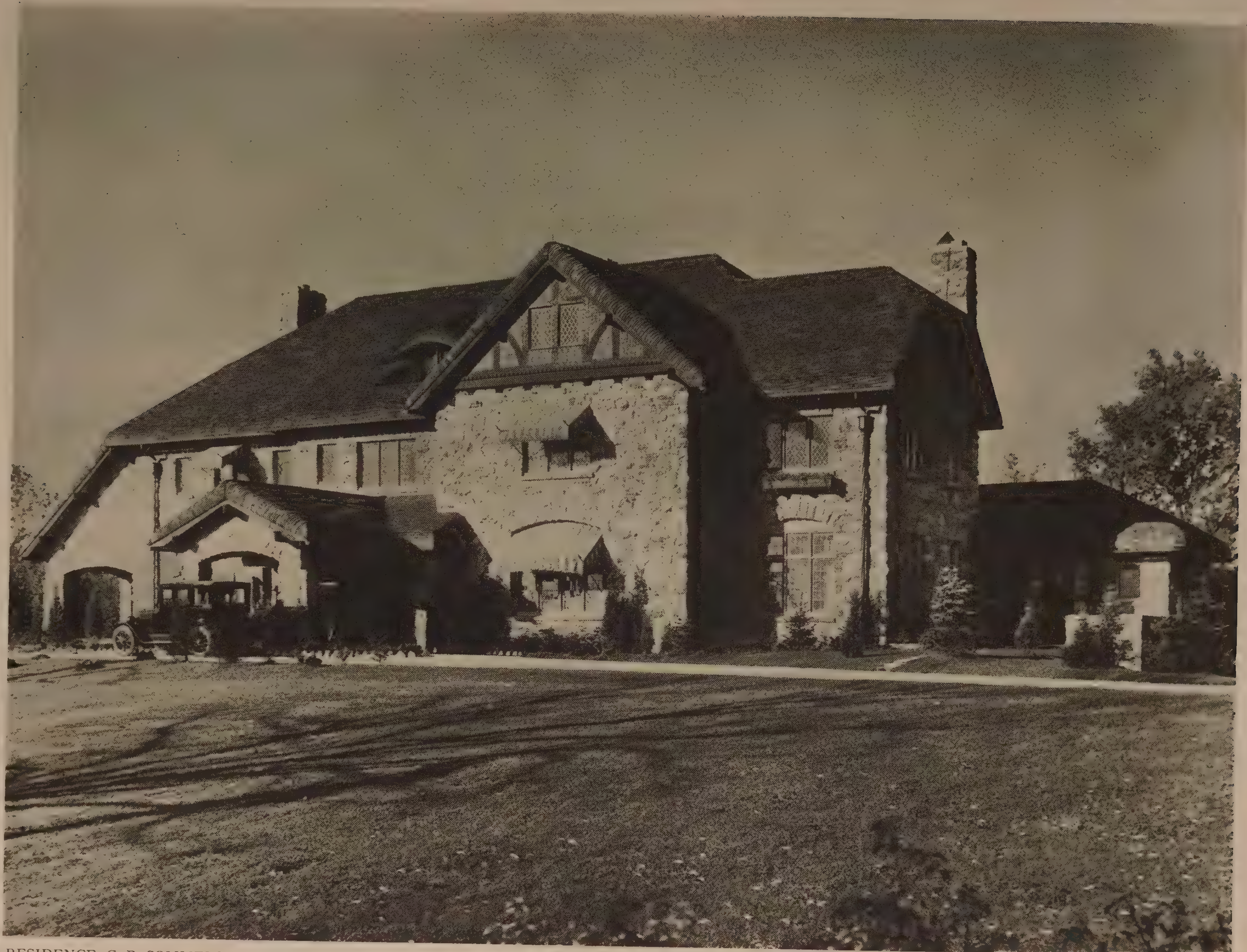


THE YACHT-LANDING ON LAKE BOCA RATON. The tea terrace projects out over the lake.



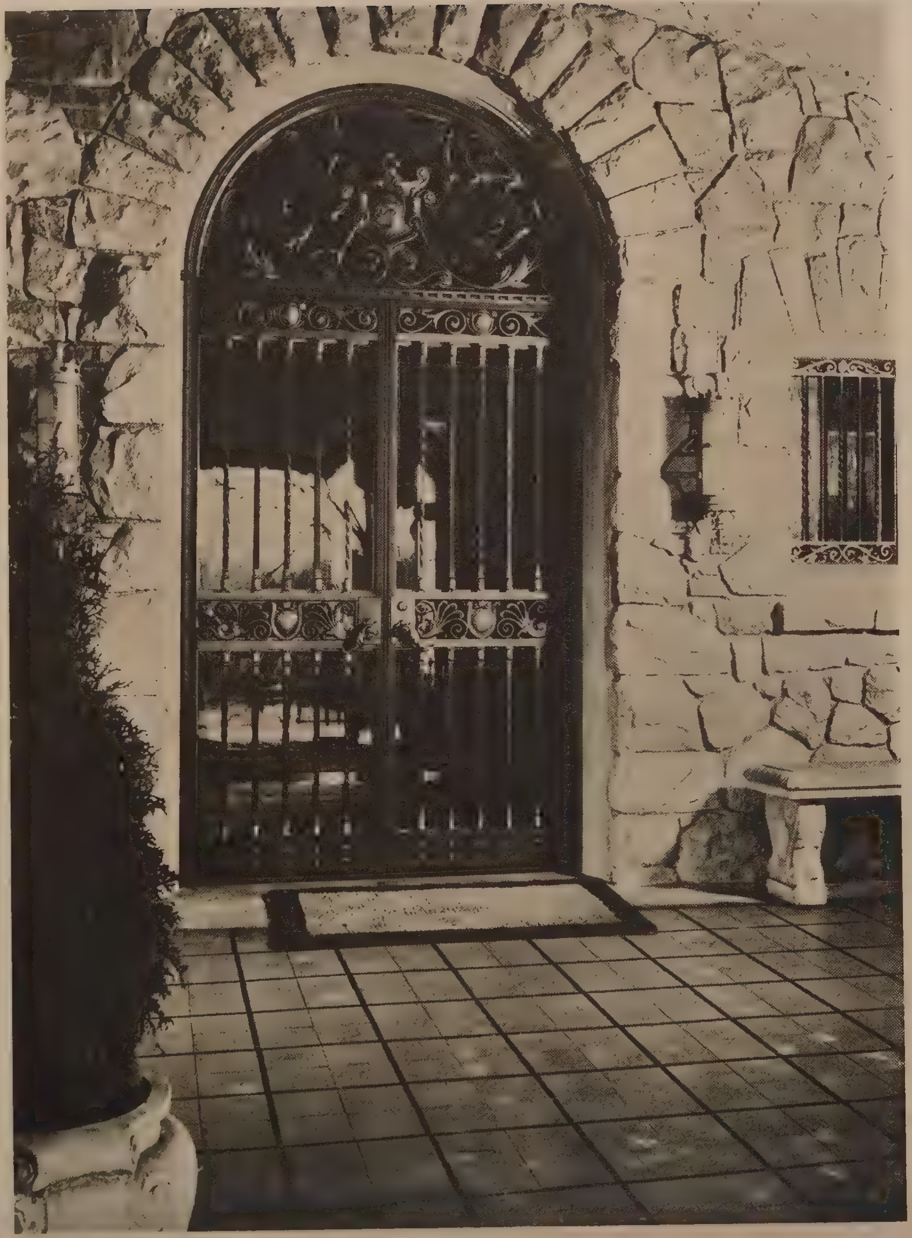
BEDROOM. Addison Mizner, Architect.

RITZ-CARLTON CLOISTER, BOCA RATON, FLA.

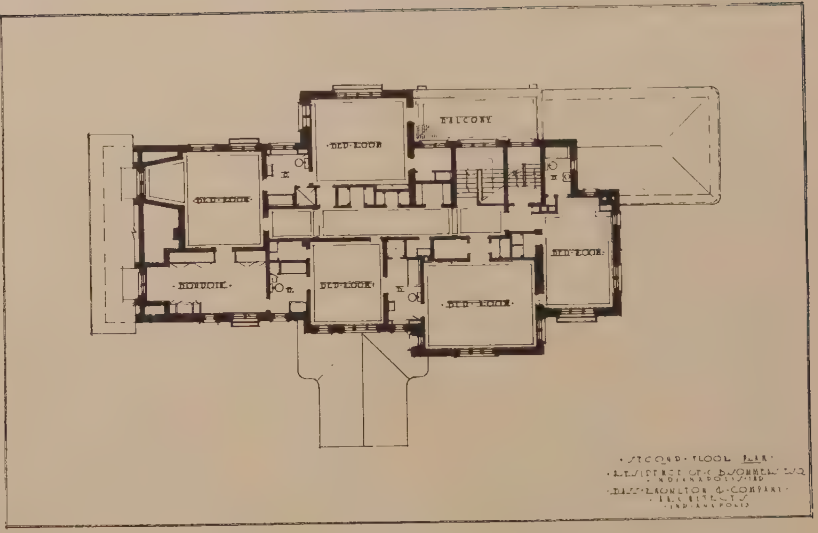


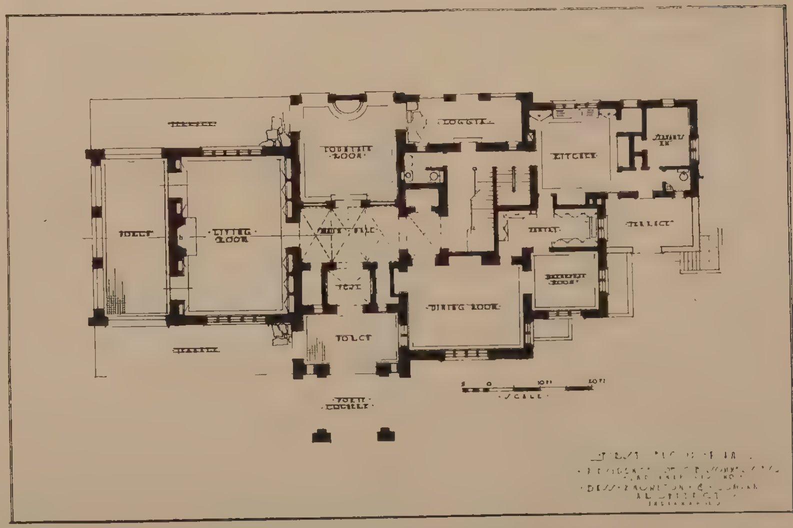
RESIDENCE, C. B. SOMMERS, INDIANAPOLIS, IND.

Bass, Knowlton & Co., Architects.

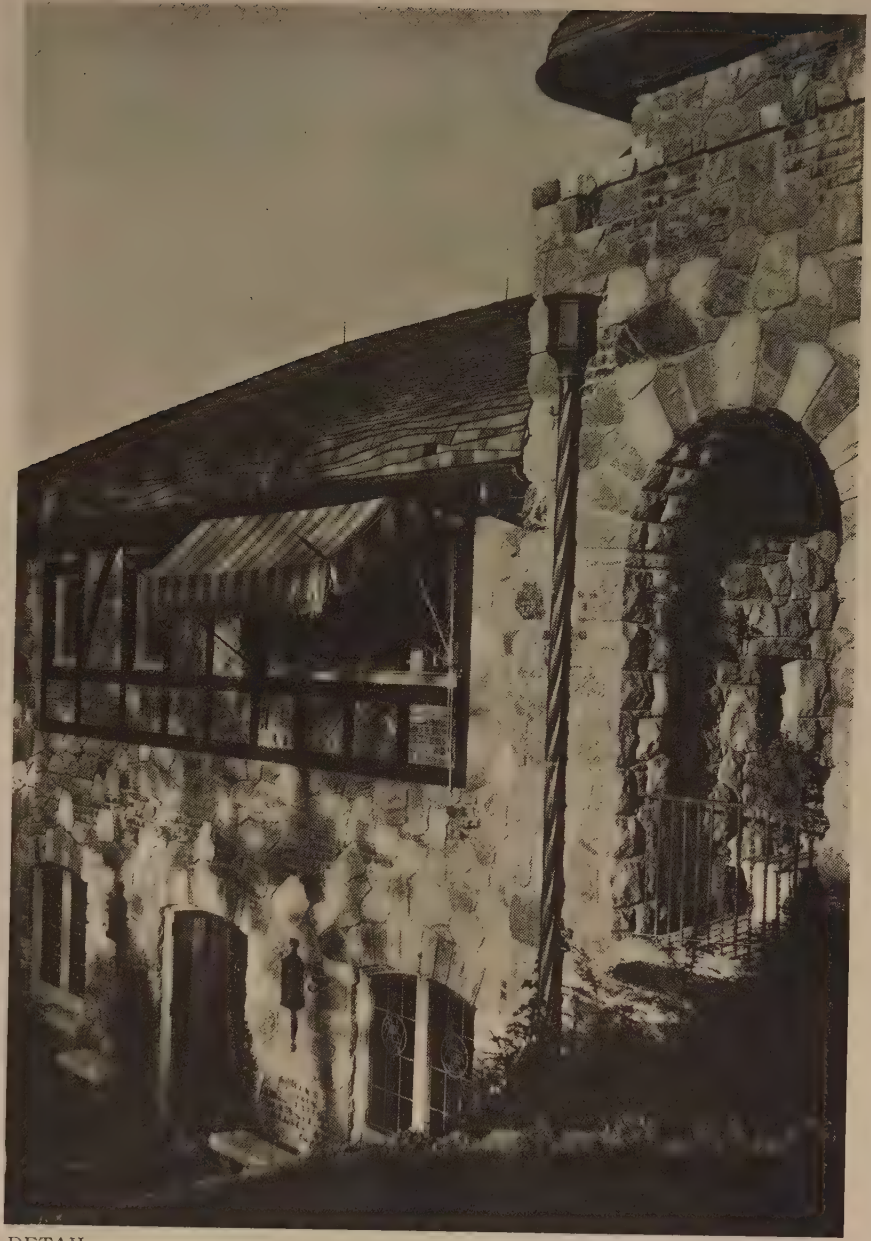


ENTRANCE, RESIDENCE, C. B. SOMMERS, INDIANAPOLIS, IND.

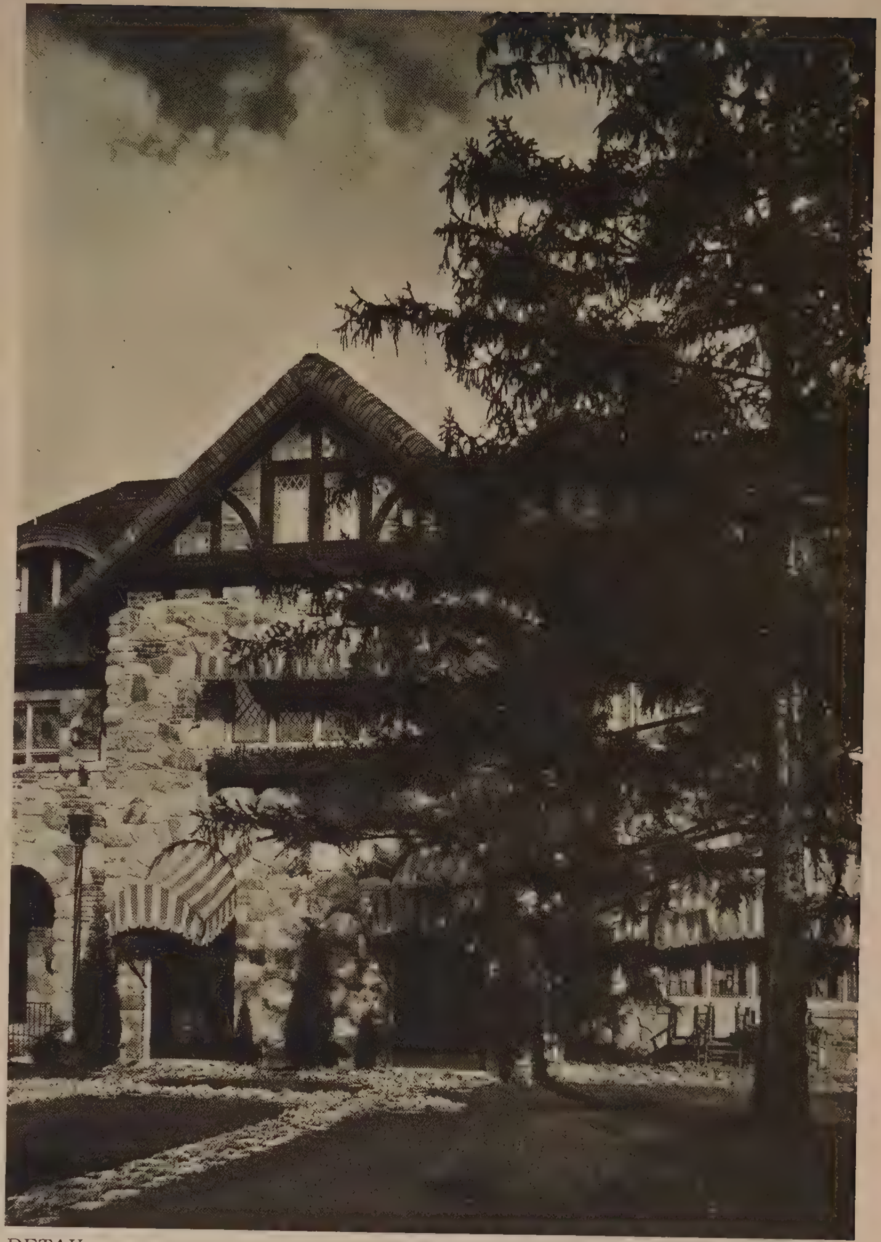




Bass, Knowlton & Co., Architects.



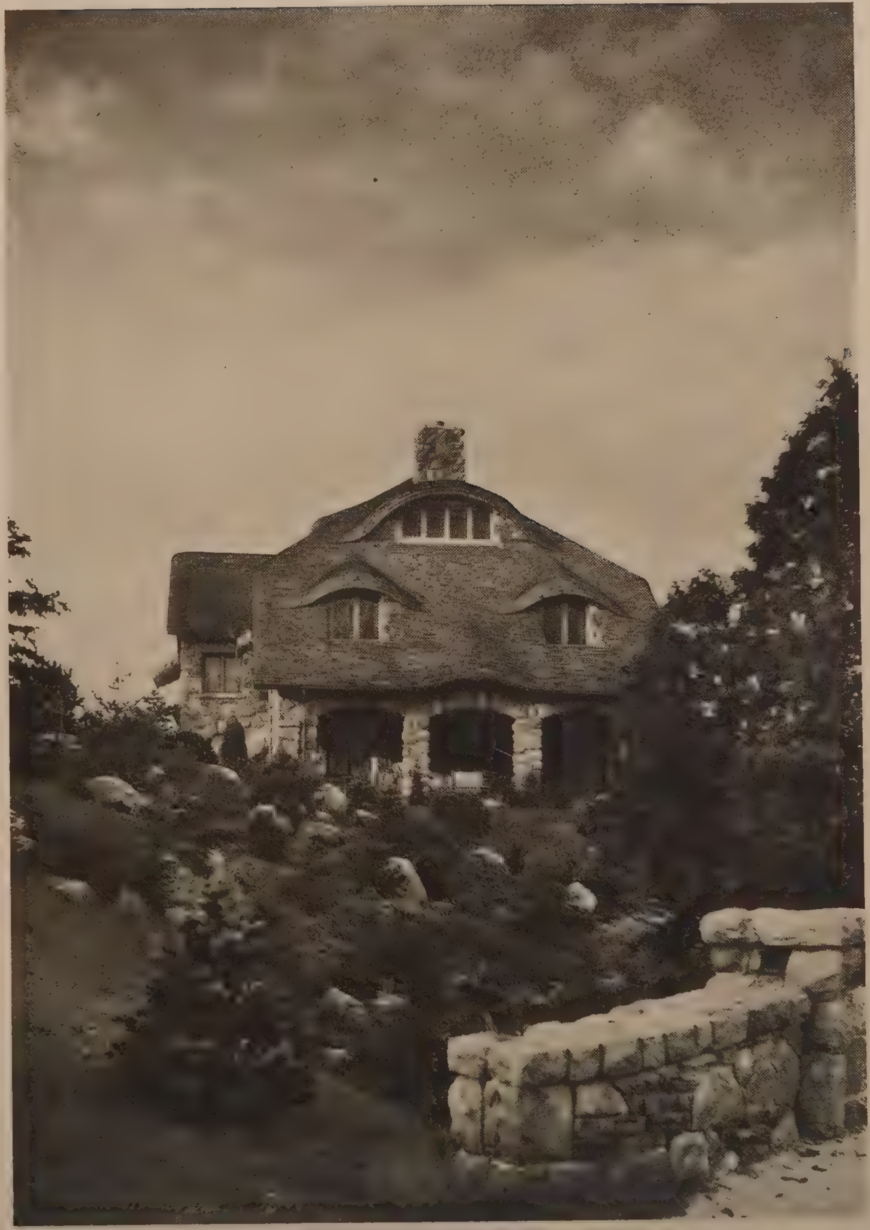
DETAIL.



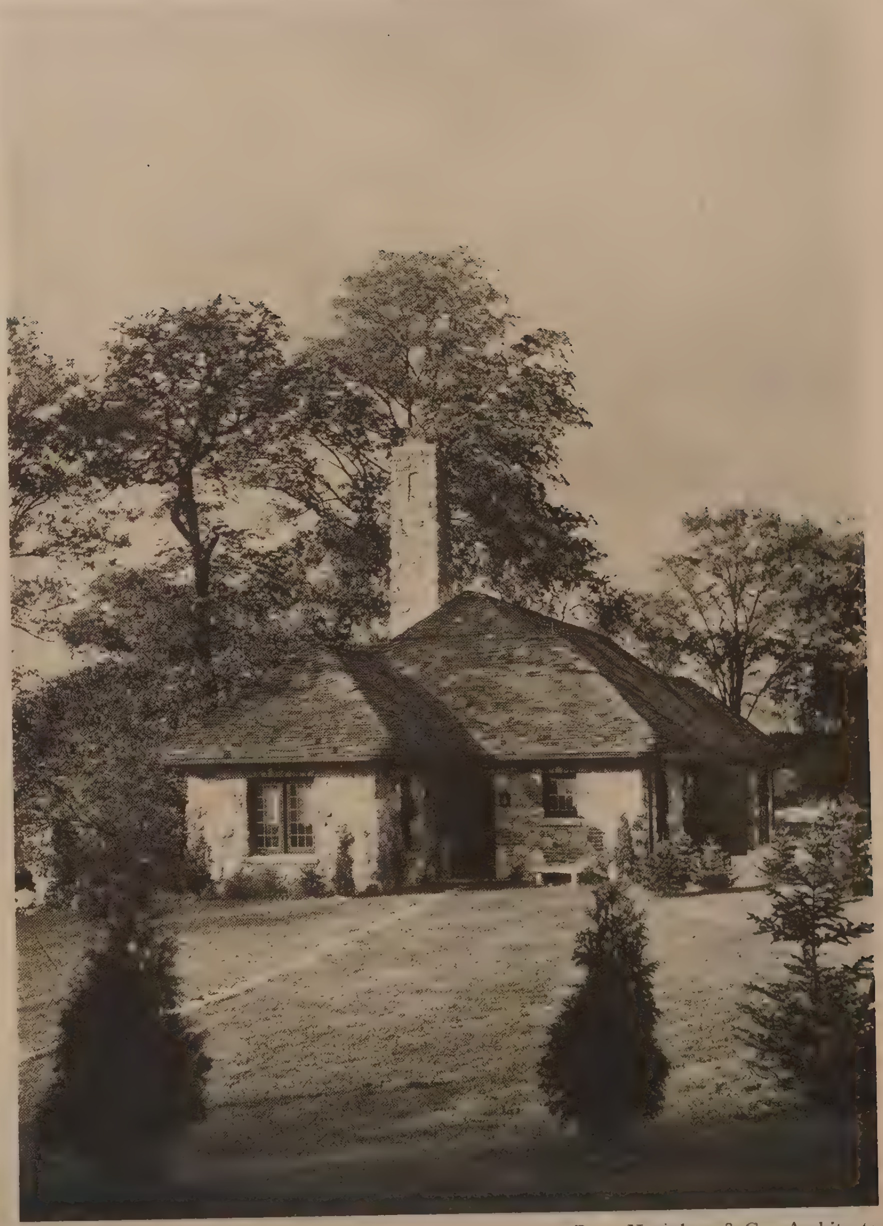
DETAIL.

Bass, Knowlton & Co., Architects.

RESIDENCE, C. B. SOMMERS, INDIANAPOLIS, IND.



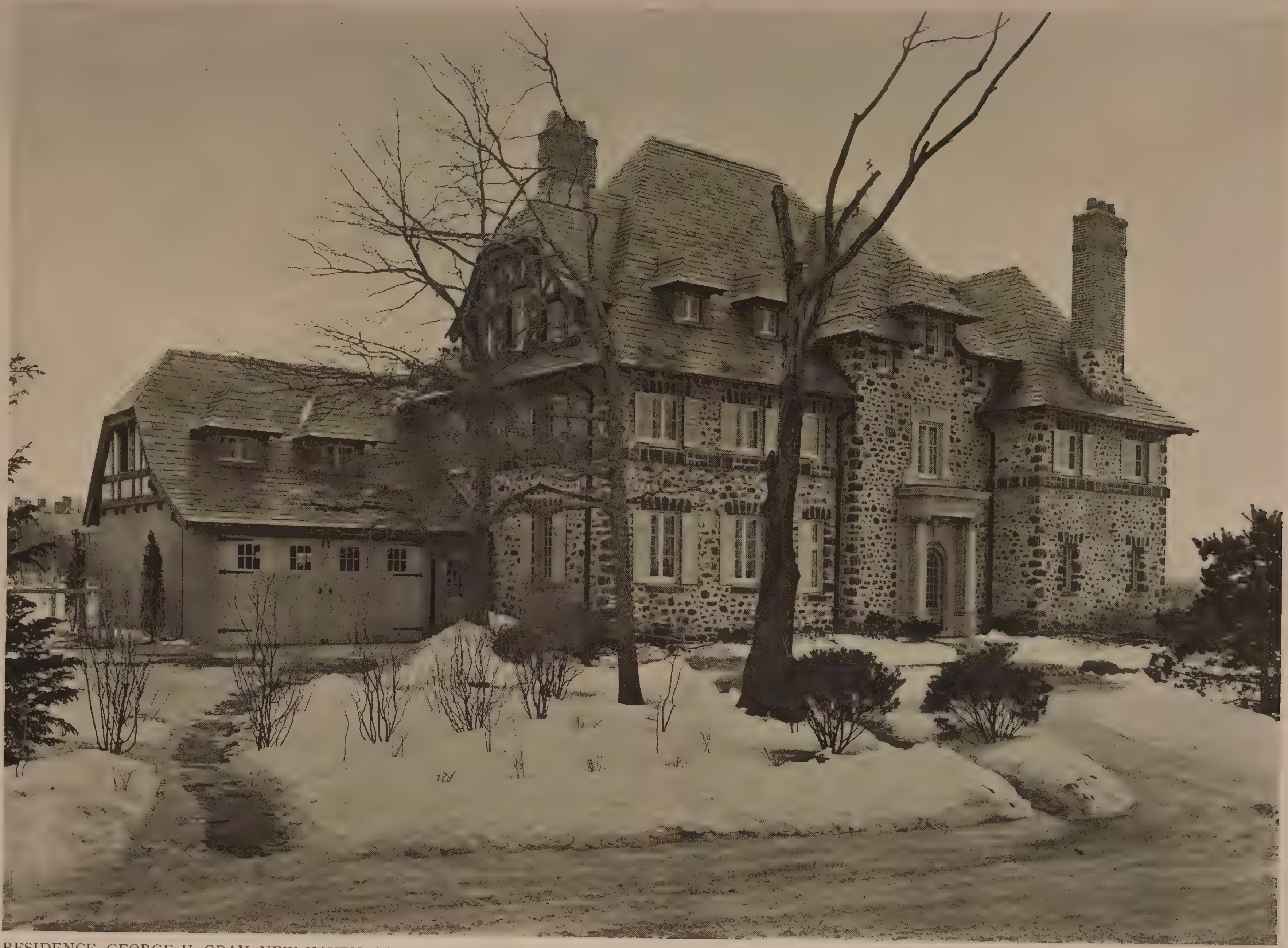
PORCH WING.



GARAGE.

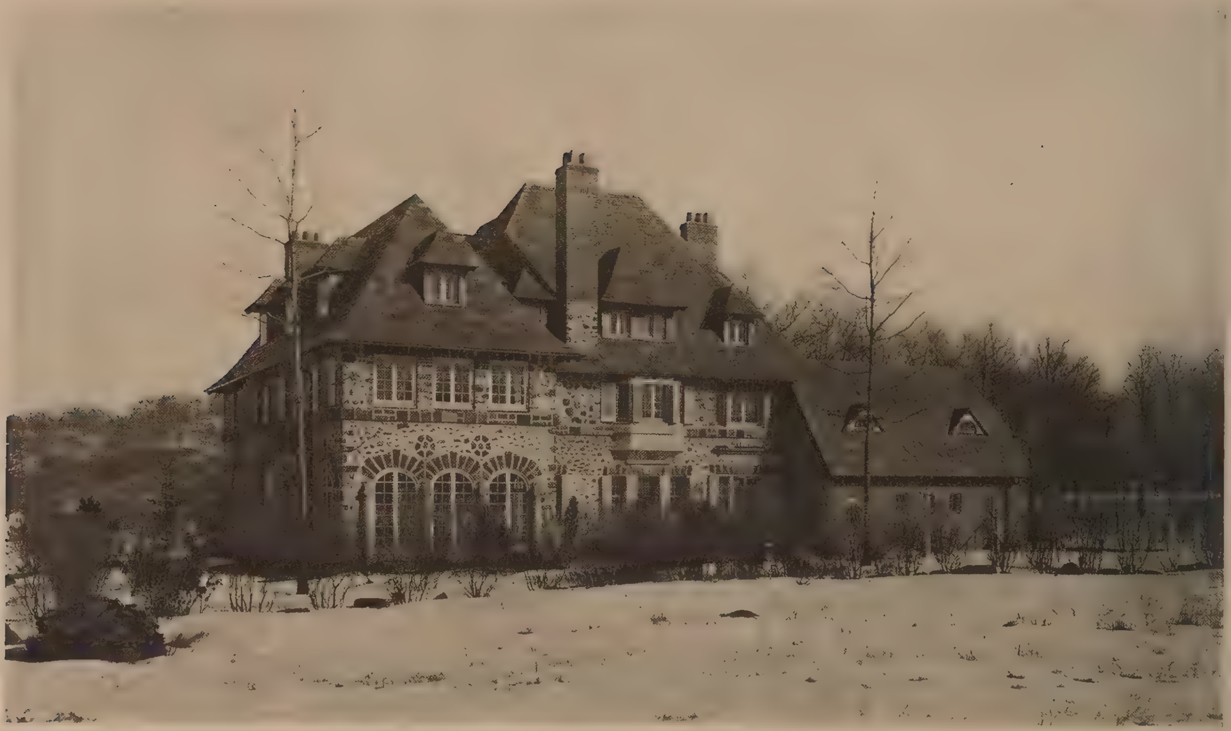
Bass, Knowlton & Co., Architects.

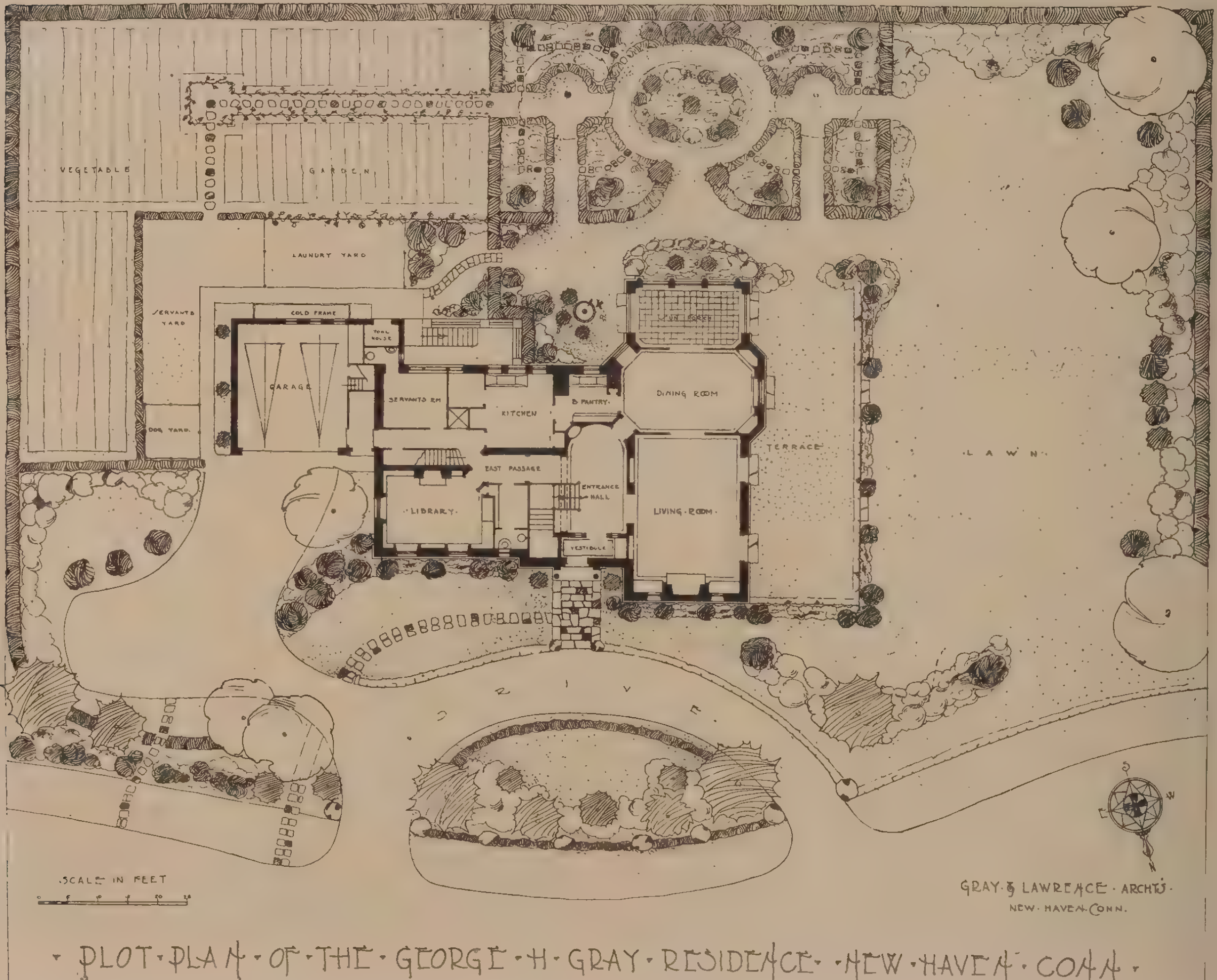
RESIDENCE, C. B. SOMMERS, INDIANAPOLIS, IND.



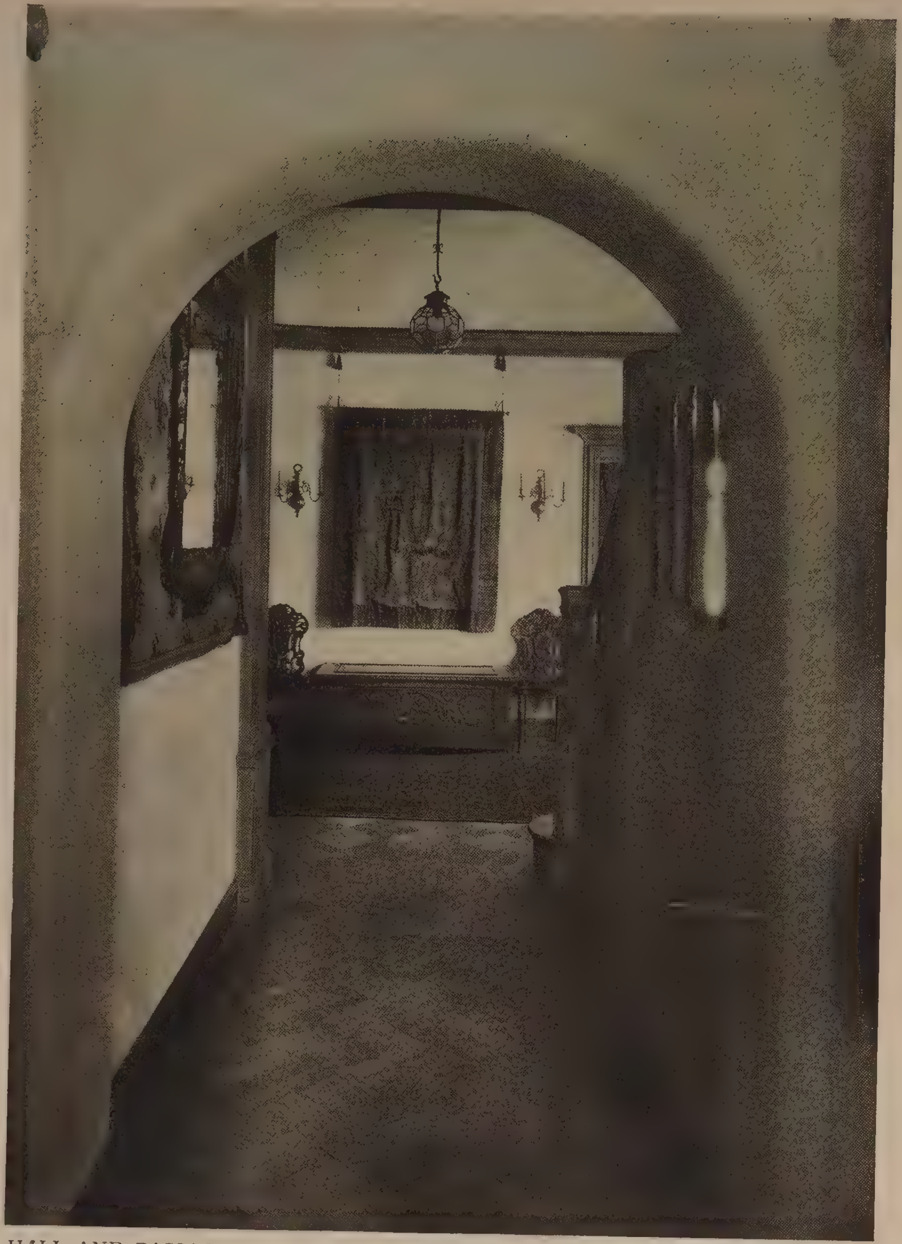
RESIDENCE, GEORGE H. GRAY, NEW HAVEN, CONN.

Gray & Lawrence, Architects.

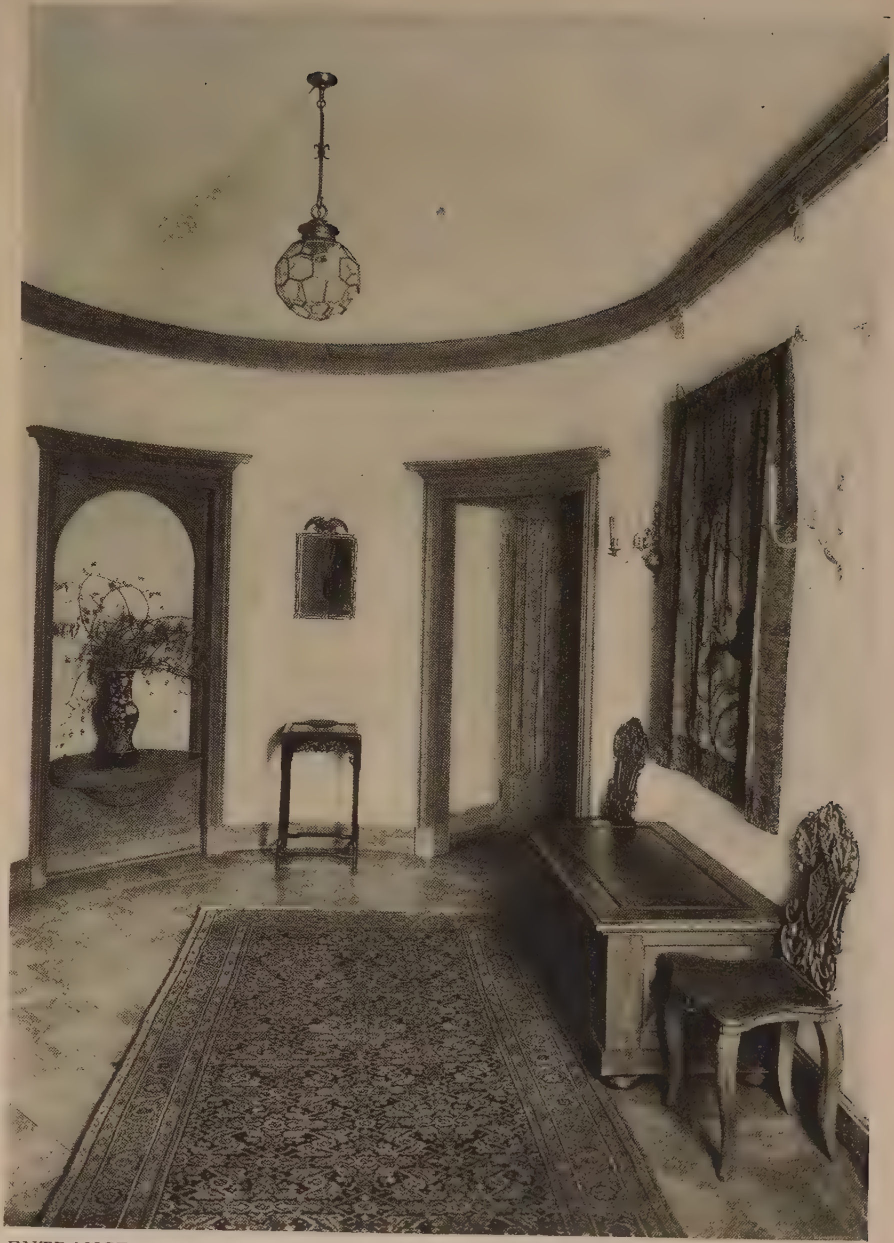




· PLOT · PLAN · OF · THE · GEORGE · H · GRAY · RESIDENCE · NEW · HAVEN · CONN ·



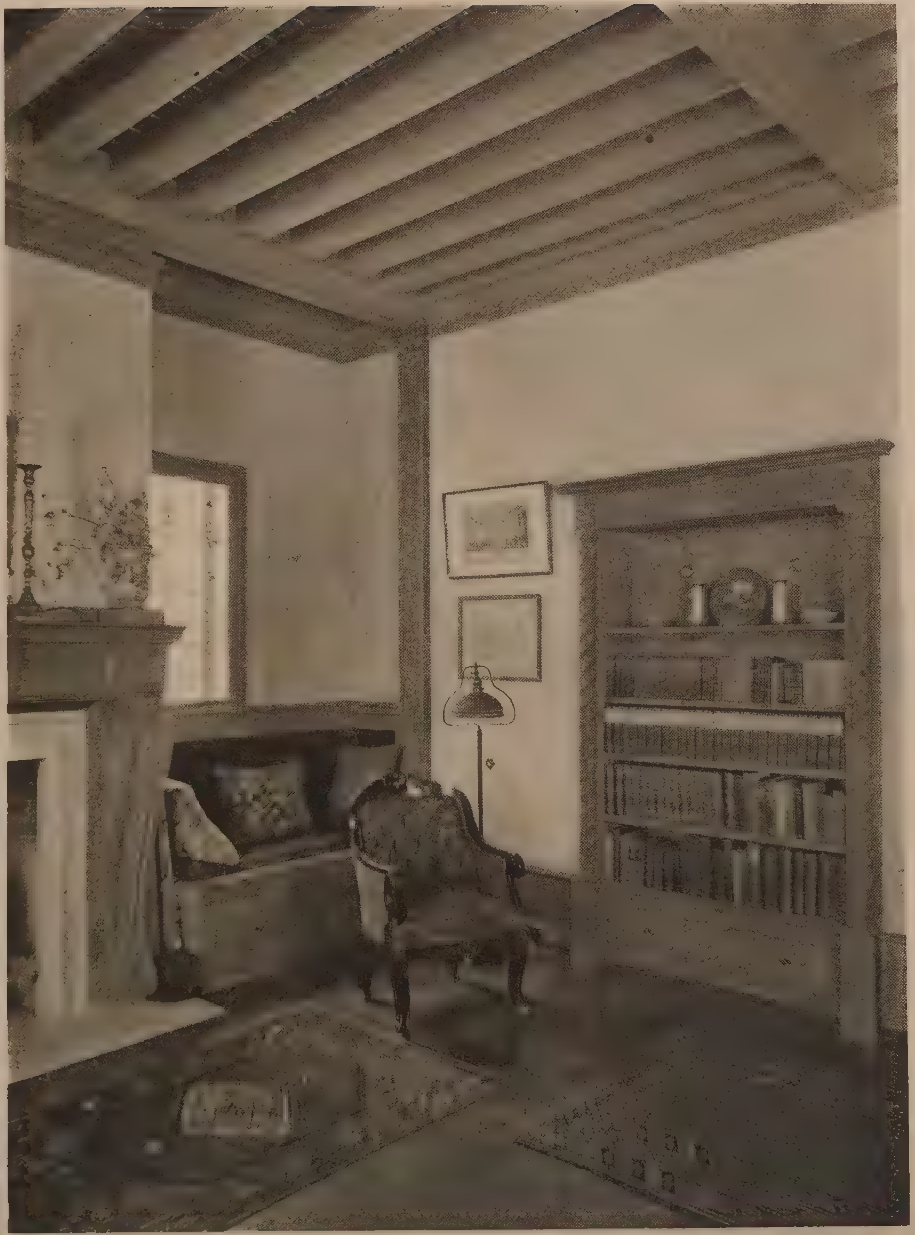
HALL AND PASSAGE.



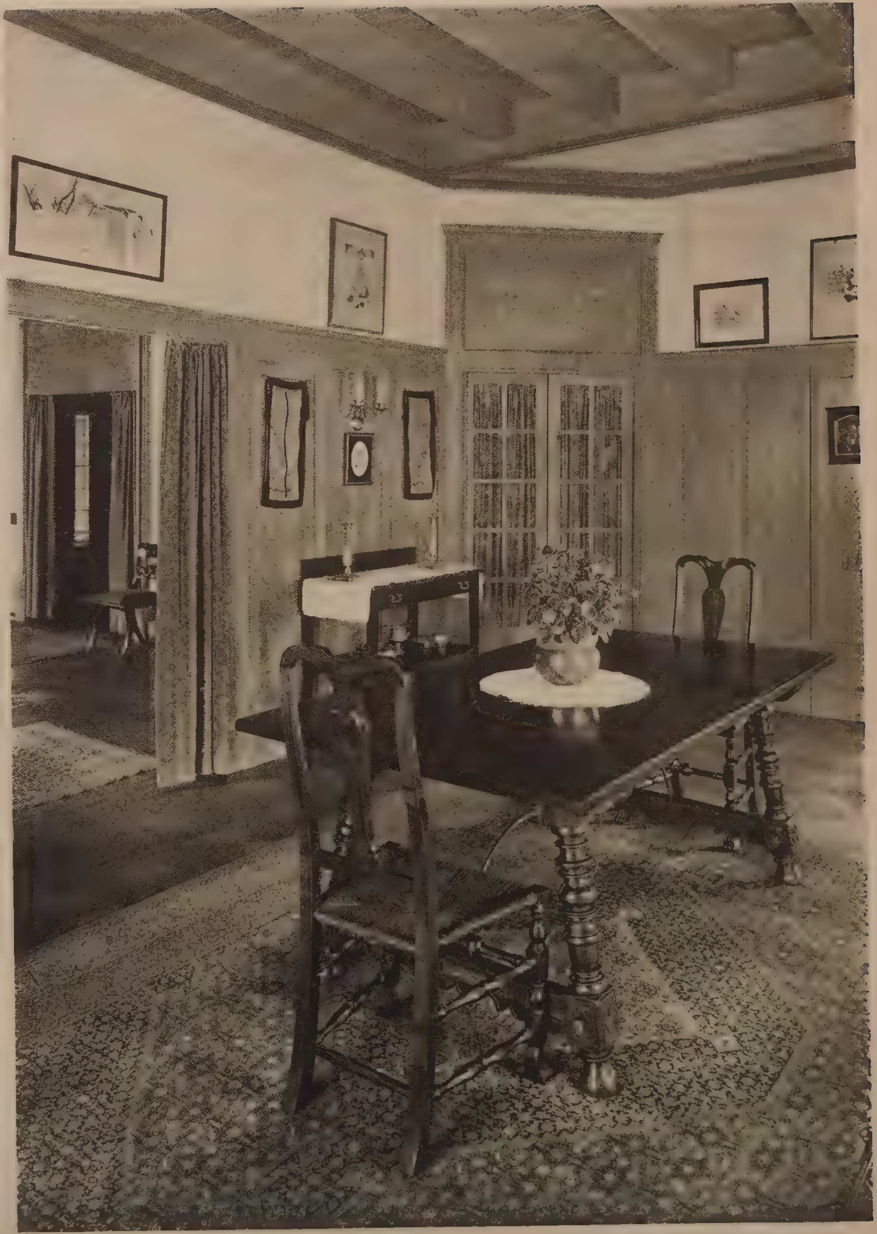
ENTRANCE HALL.

Gray & Lawrence, Architects.

RESIDENCE, GEORGE H. GRAY, NEW HAVEN, CONN.



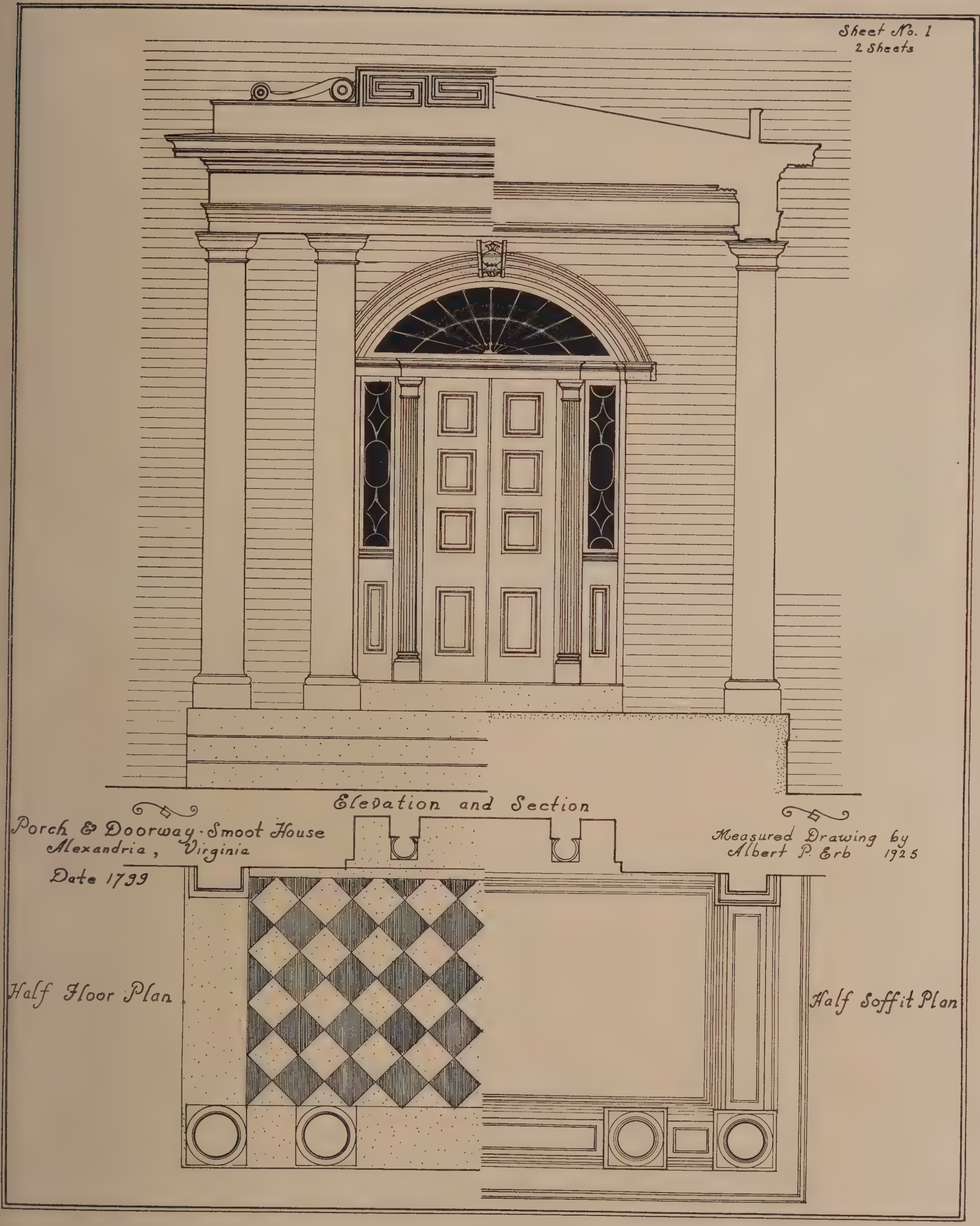
LIVING–ROOM.

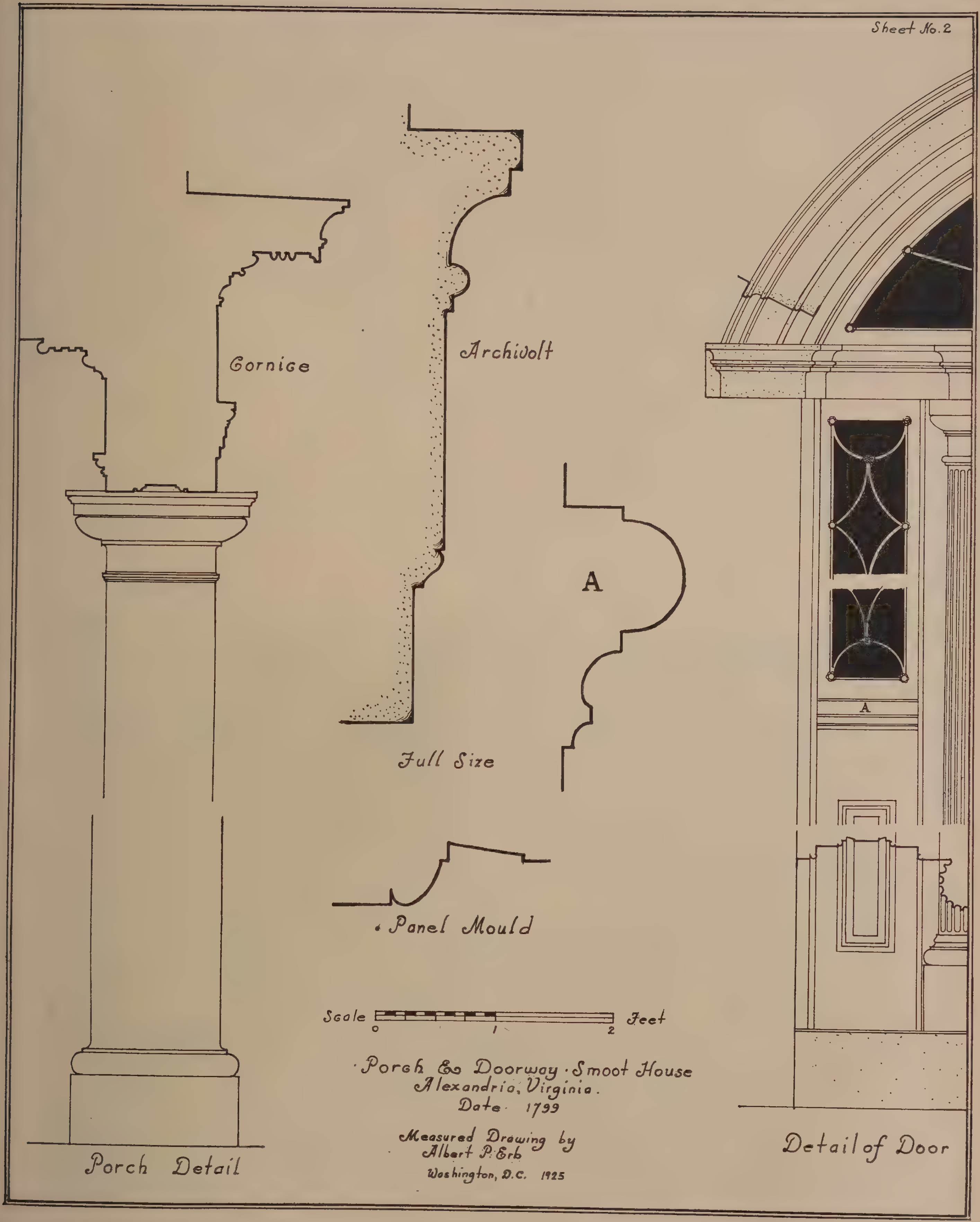


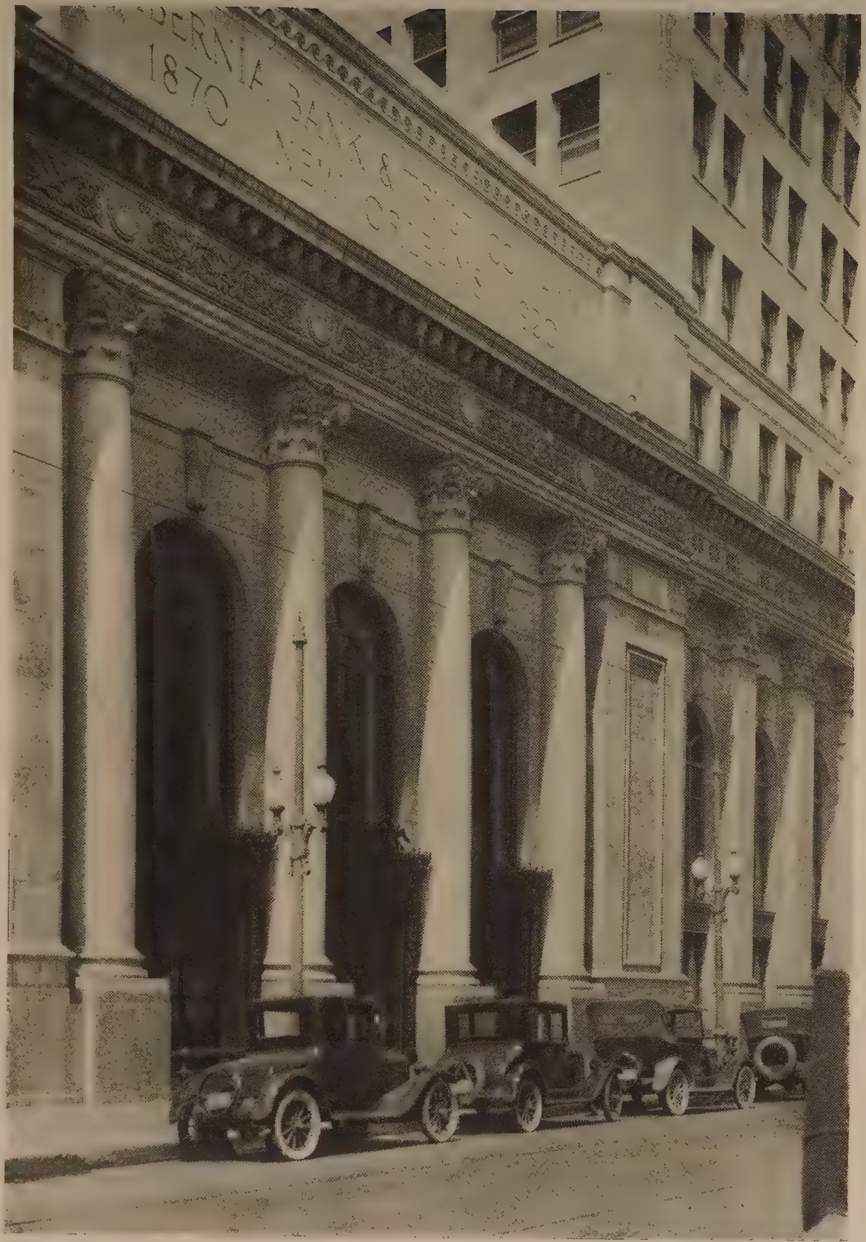
DINING–ROOM.

Gray & Lawrence, Architects.

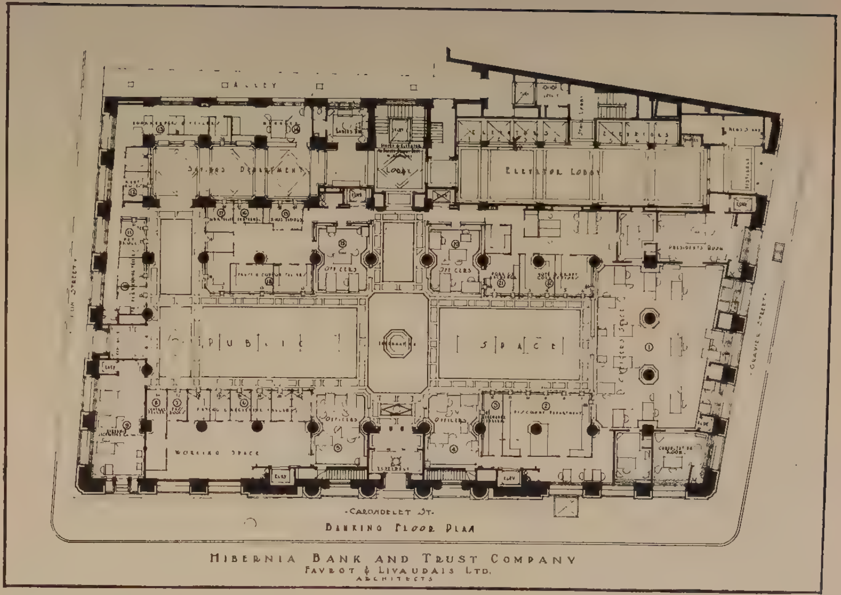
RESIDENCE, GEORGE H. GRAY, NEW HAVEN, CONN.

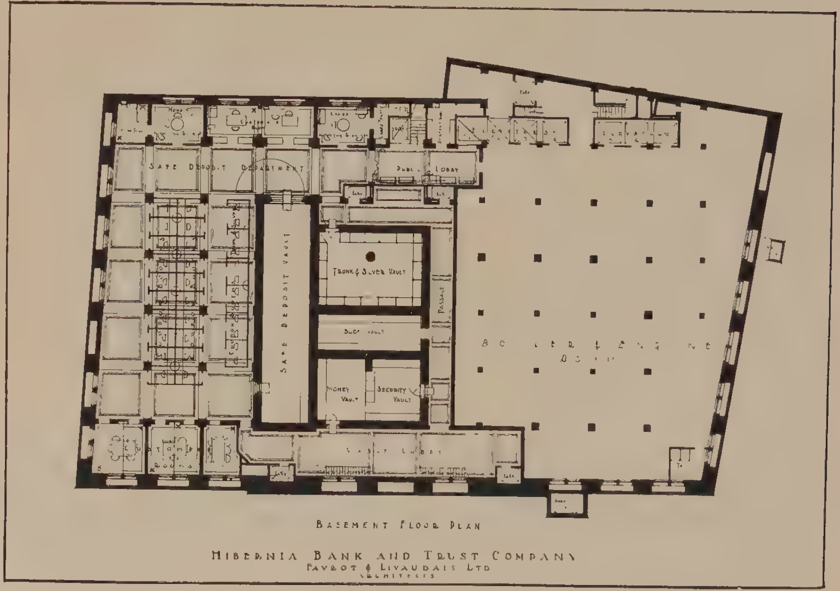

Sheet No. 1
2 Sheets
Elevation and Section
Porch & Doorway - Smoot House
Alexandria, Virginia
Date 1799
Measured Drawing by
Albert P. Erb 1925
Half Floor Plan
Half Soffit Plan


Sheet No. 2
Cornice
Archivolt
A
Full Size
Panel Mould
A
Scale 0 1 2 Feet
Porch & Doorway · Smoot House
Alexandria, Virginia.
Date 1799
Measured Drawing by
Albert P. Erb
Washington, D.C. 1925
Porch Detail
Detail of Door



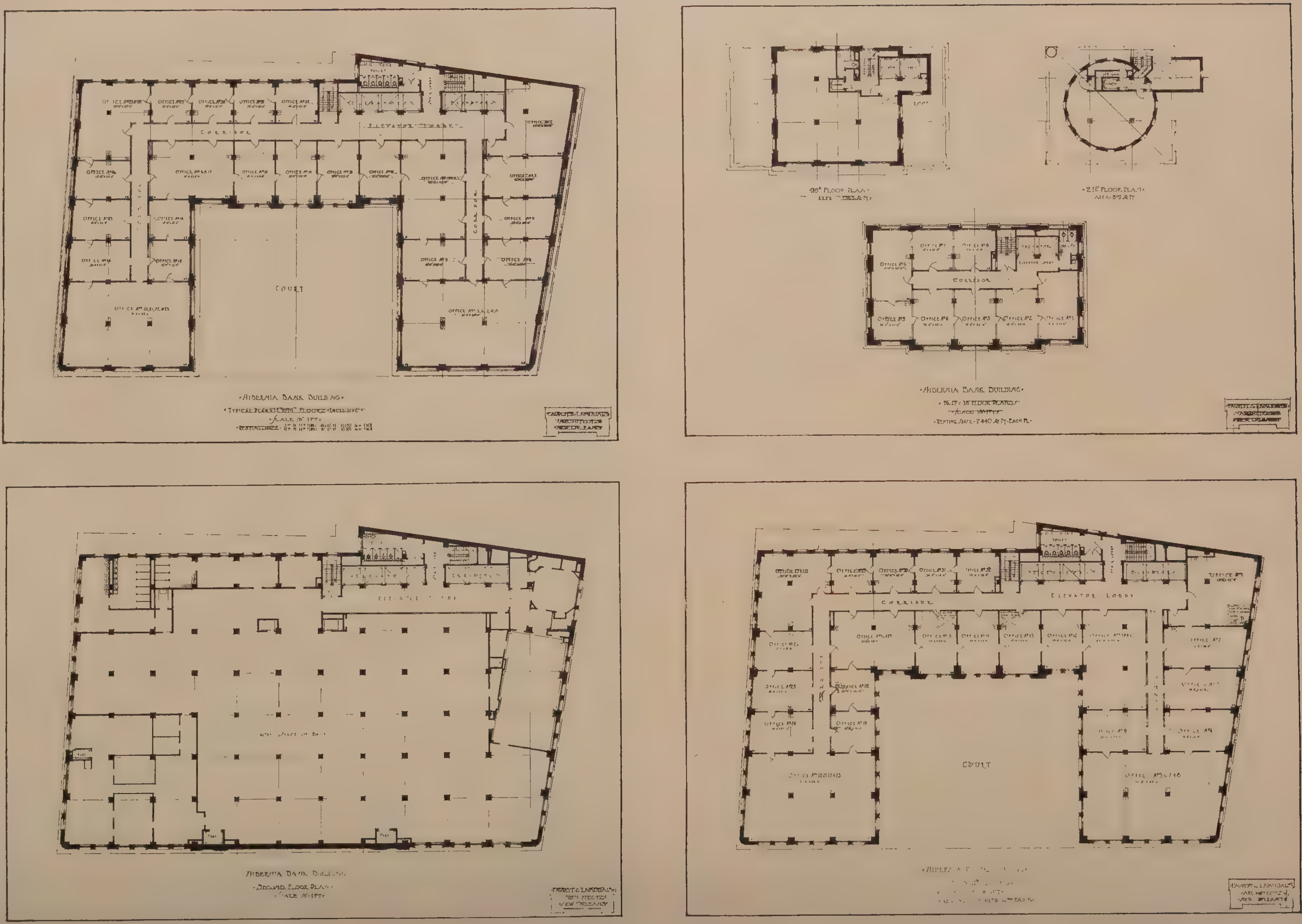
DETAIL OF ENTRANCE.





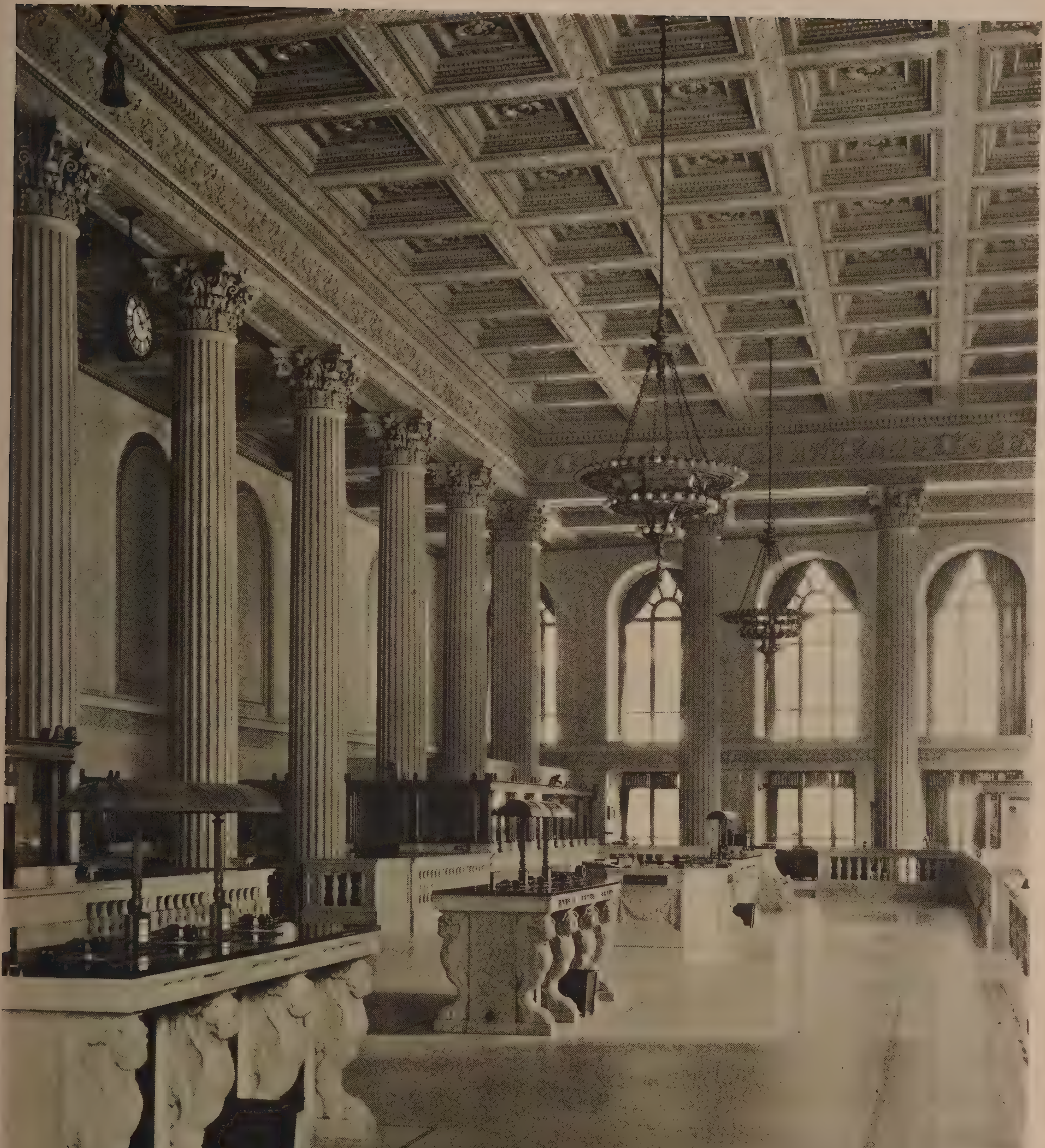
HIBERNIA BANK BUILDING, NEW ORLEANS, LA.

Favrot & Livaudais, Ltd., Architects, associated with Alfred C. Bossom, Architect.

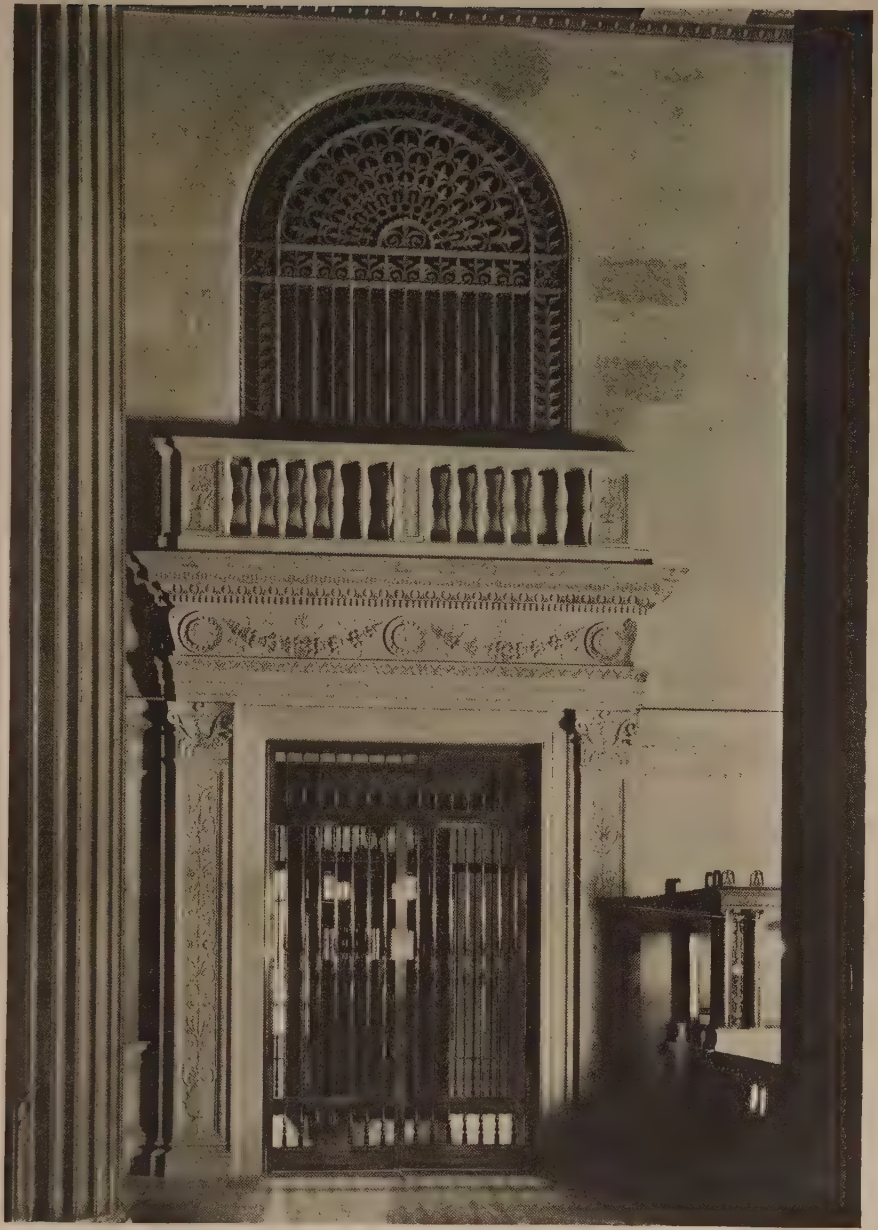


PLANS, HIBERNIA BANK BUILDING, NEW ORLEANS, LA.

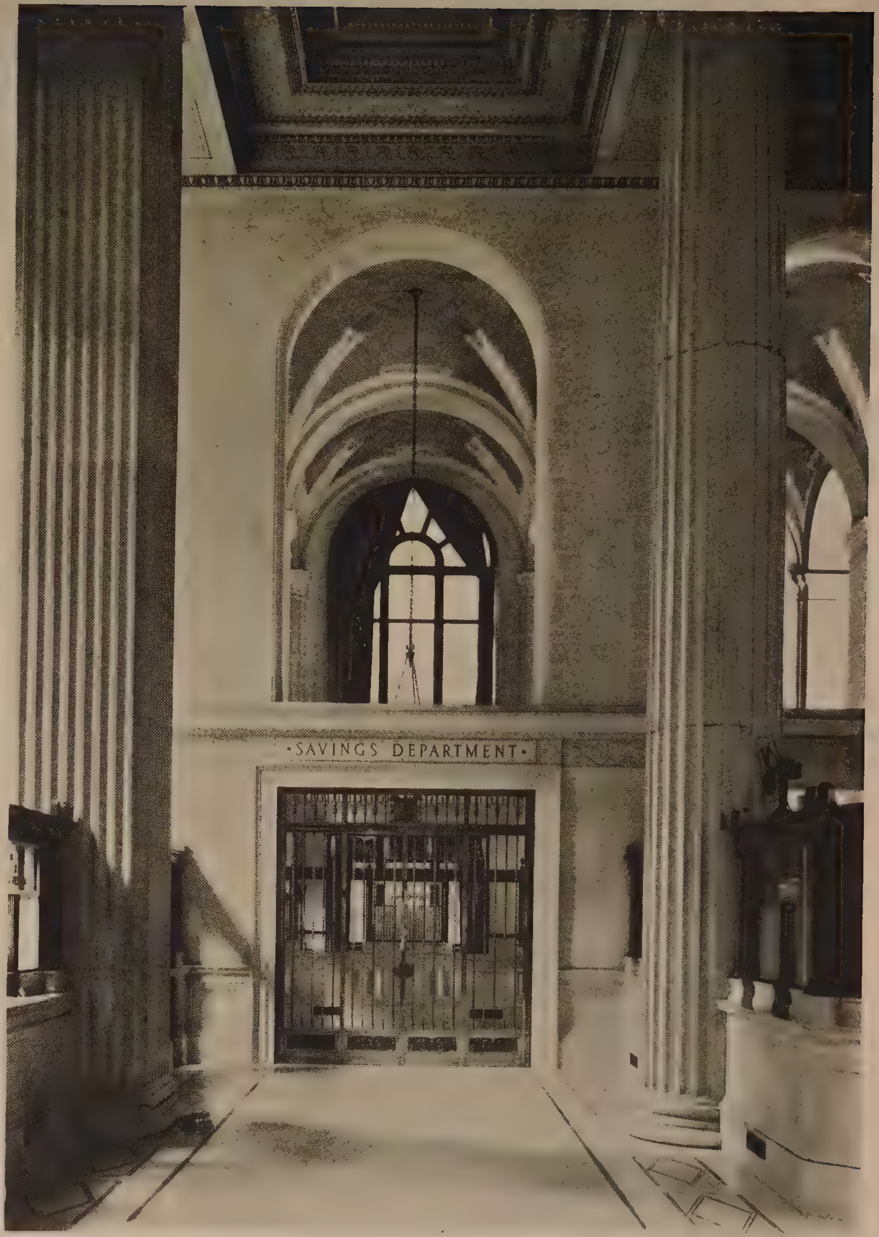
Favrot & Livaudais, Ltd., Architects, associated with Alfred C. Bossom, Architect.



BANKING-ROOM, HIBERNIA BANK BUILDING, NEW ORLEANS, LA.
Favrot & Livaudais, Ltd., Architects, associated with Alfred C. Bossom, Architect.



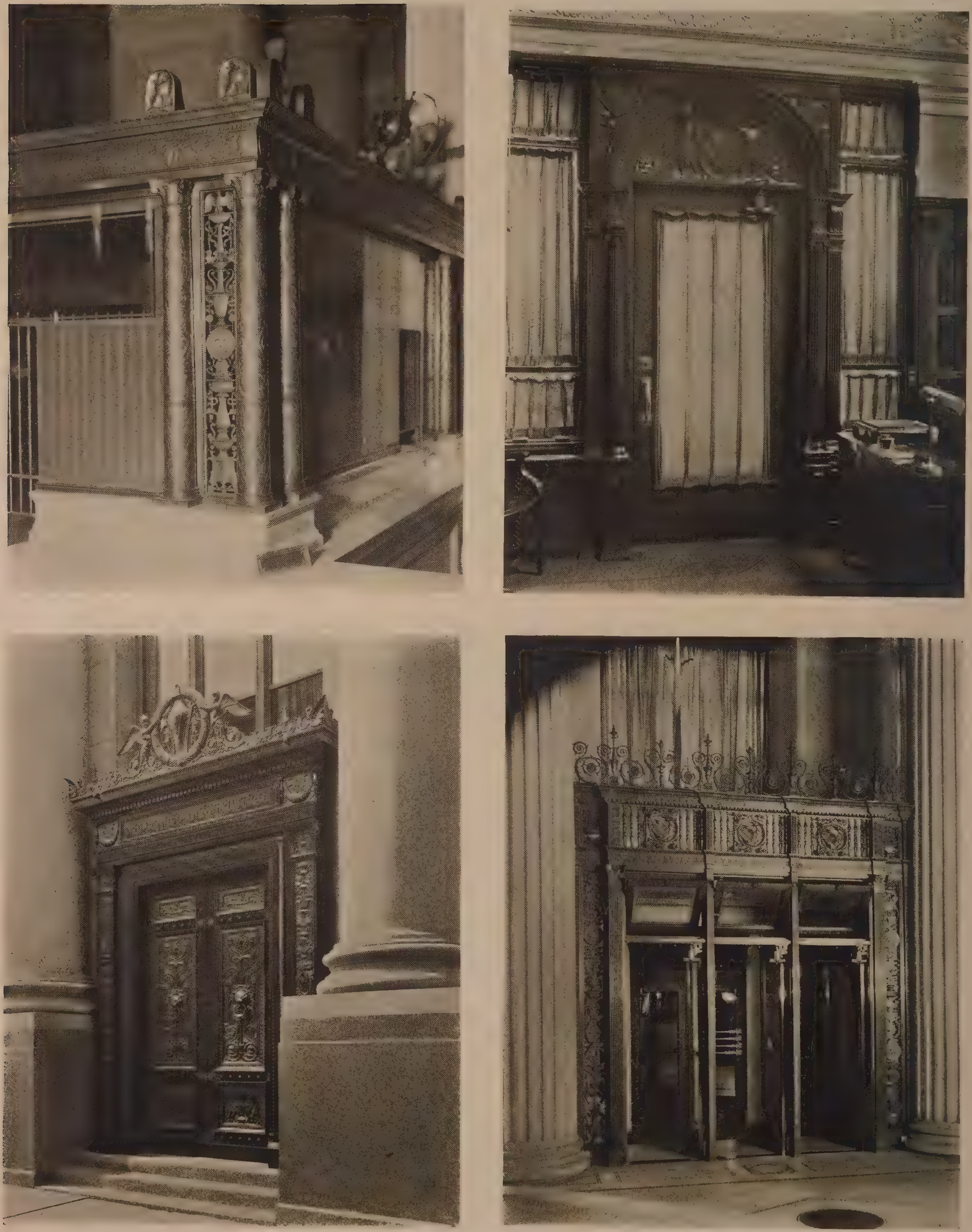
DETAIL.



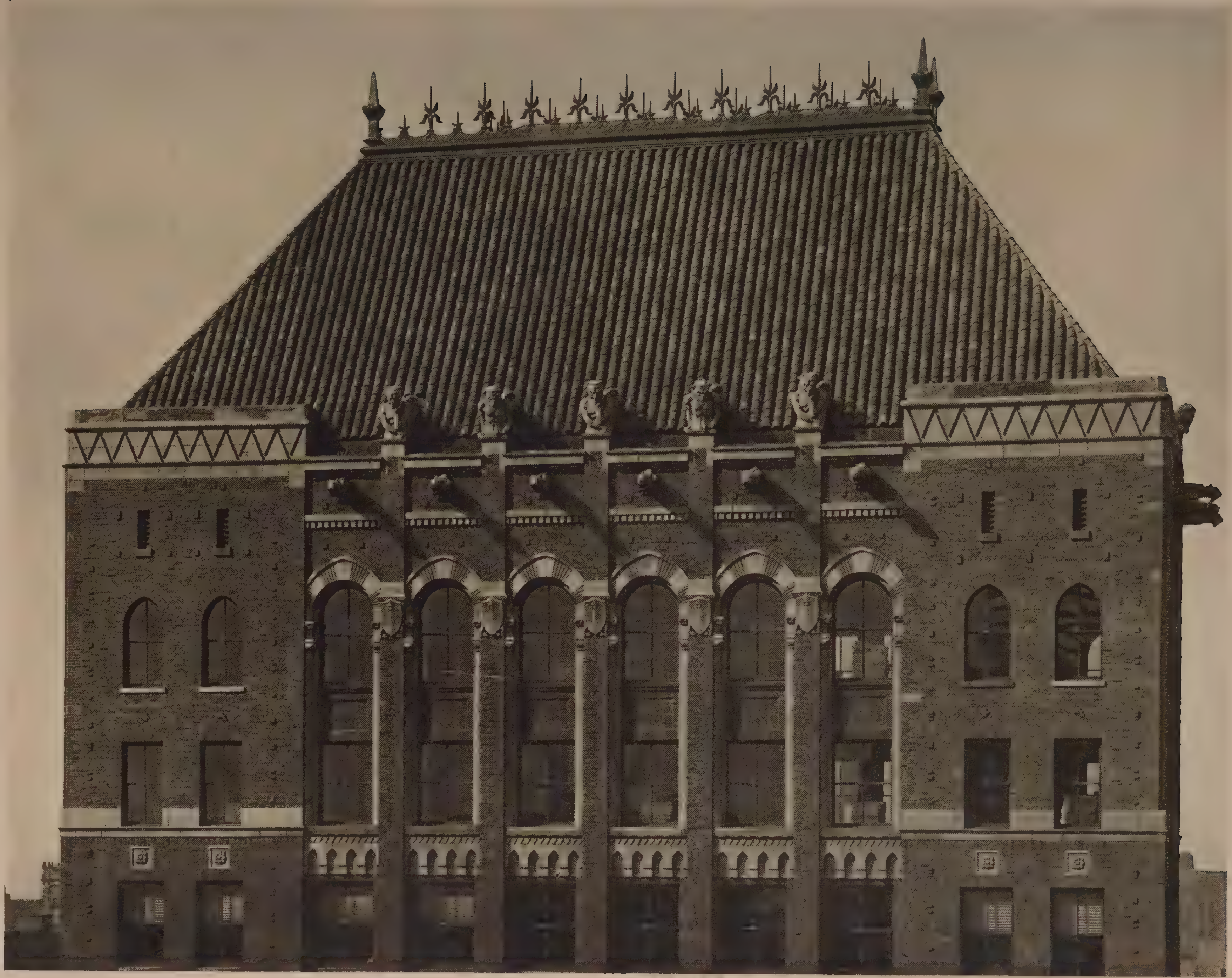
DETAIL.

BANKING FLOOR, HIBERNIA BANK BUILDING, NEW ORLEANS, LA.

Favrot & Livaudais, Ltd., Architects, associated with Alfred C. Bossom, Architect.

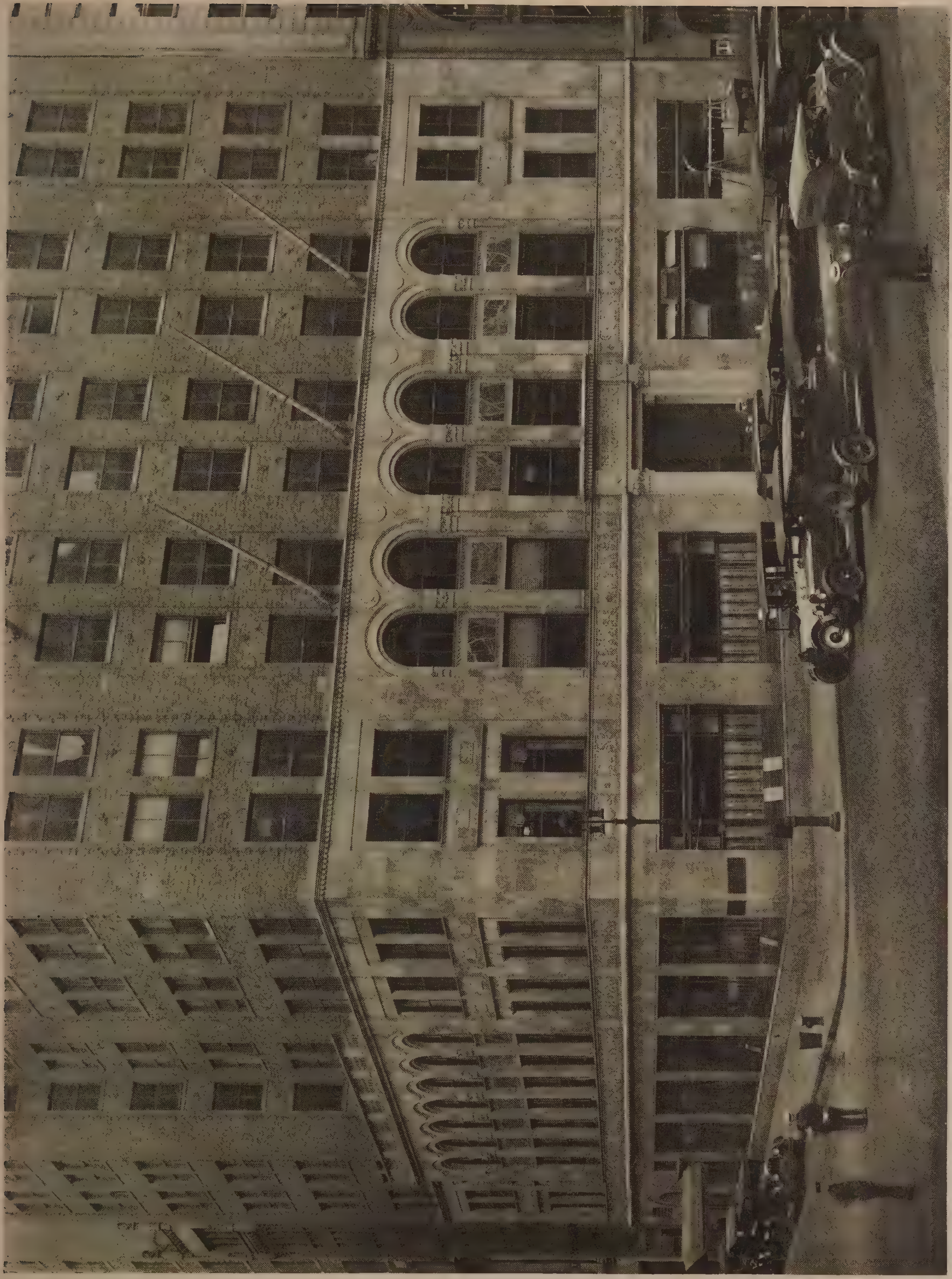


DETAILS, HIBERNIA BANK BUILDING, NEW ORLEANS, LA.
Favrot & Livaudais, Ltd., Architects, associated with Alfred C. Bossom, Architect.



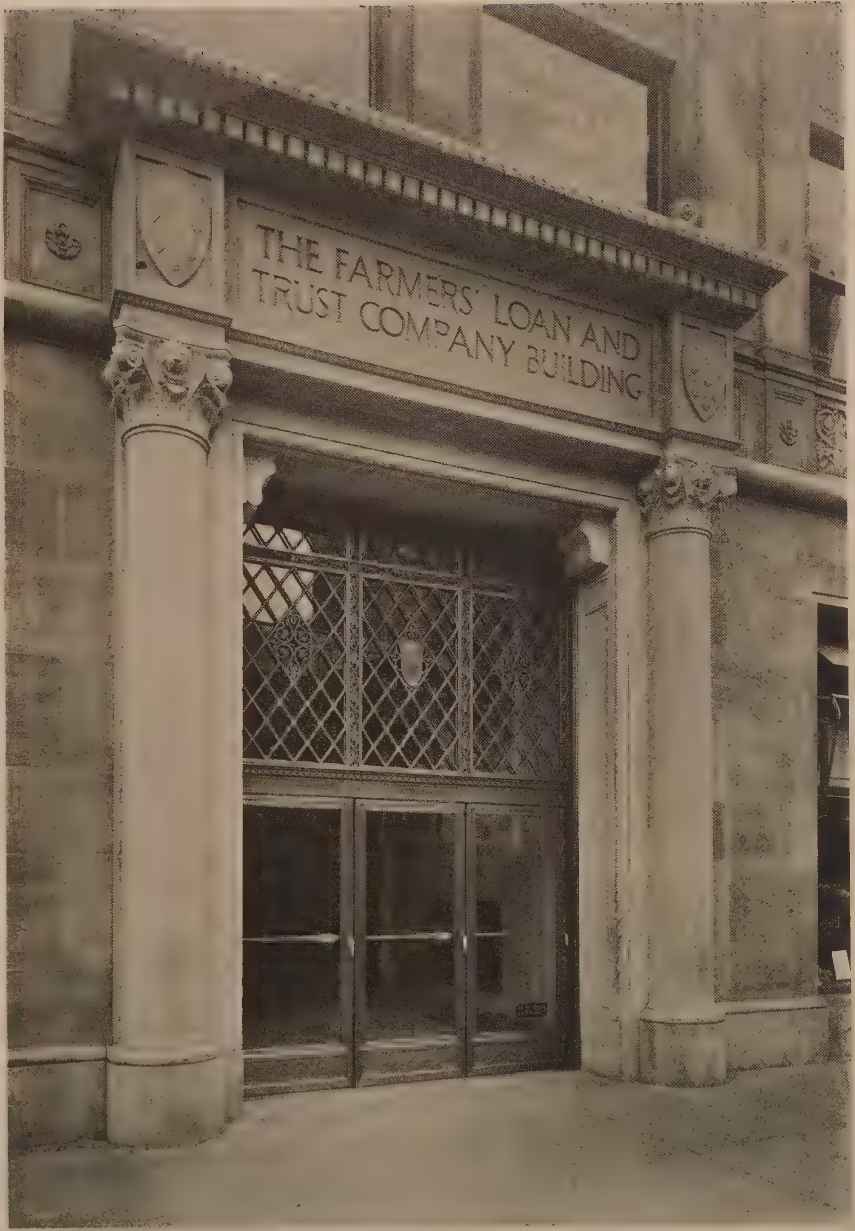
DETAIL OF UPPER STORIES, FARMERS LOAN AND TRUST COMPANY BUILDING, NEW YORK.

Starrett & Van Vleck, Architects.

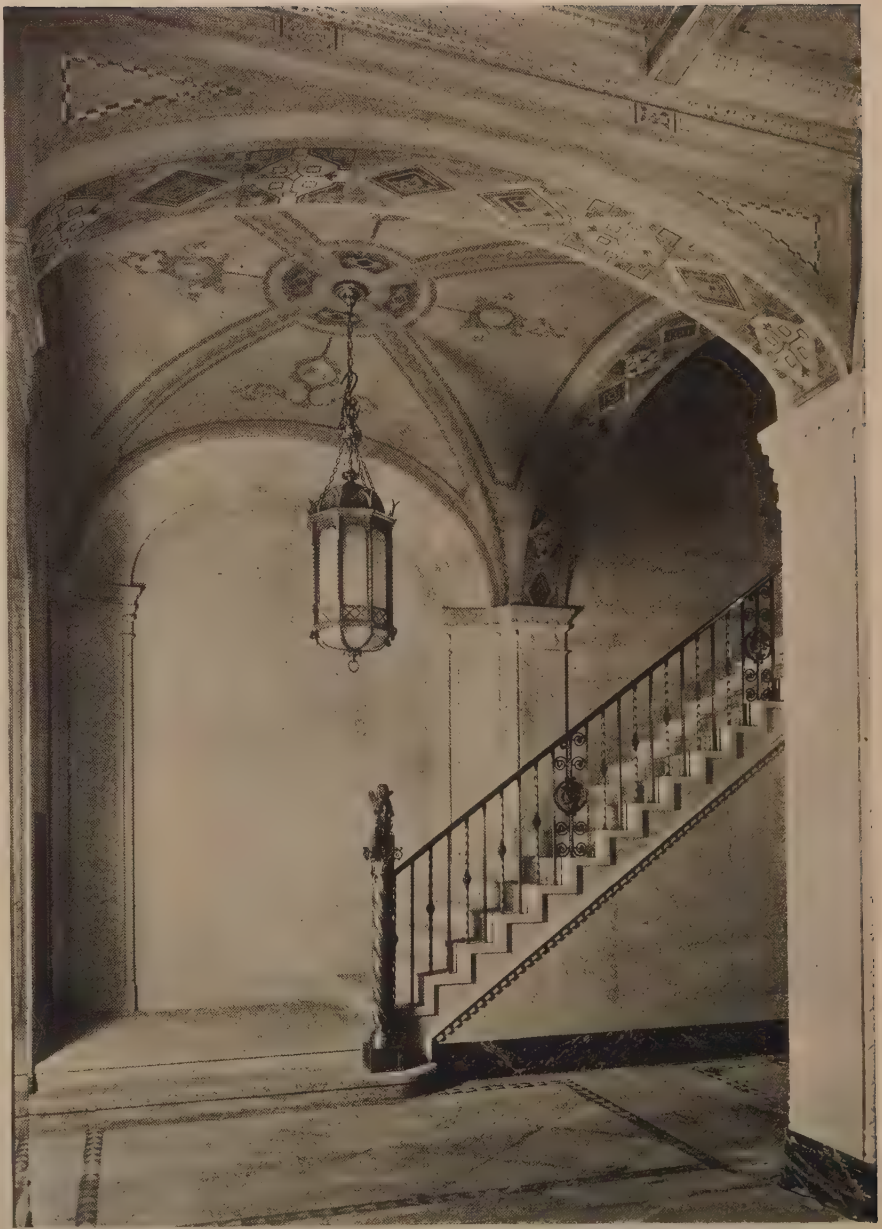


DETAIL, LOWER STORIES, FARMERS LOAN AND TRUST COMPANY BUILDING, NEW YORK.

Starrett & Van Vleck, Architects.



MAIN ENTRANCE, FIFTH AVENUE.

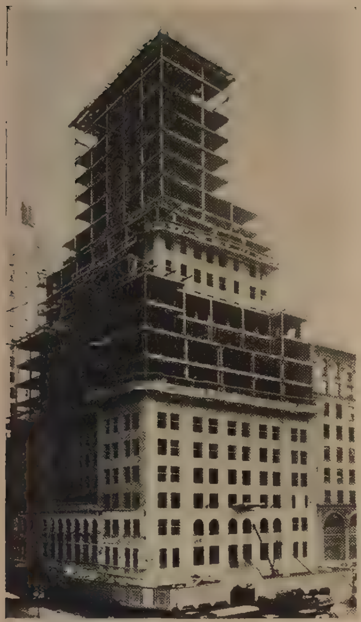


STAIRCASE AT END OF MAIN HALL.

FARMERS LOAN AND TRUST COMPANY BUILDING, NEW YORK,
Starrett & Van Vleck, Architects,

The Farmers Loan and Trust Company Building

Starrett & Van Vleck, Architects



In construction.

THE new Farmers Loan and Trust Company Building occupies a plot of about 105 feet on the east side of Fifth Avenue by 140 feet on the south side of 41st Street. It is directly opposite the Public Library and Bryant Park and hence will have perfect light and air for all time. The building is in the heart of the retail and professional district, and is situated conveniently to the Grand Central Station and all the rapid-transit lines converging there.

This imposing and distinguished structure was designed by Starrett & Van Vleck, architects, in the late Italian Romanesque, and is of "shot gang sawn" Indiana limestone for the lower three stories, giving a rough texture and fine play of color. The upper stories are treated in rough dark-brown brick, stone and terra-cotta to match. The peaked roof is of green mission tile.

The setbacks of the upper stories and the tower presented a difficult problem in planning on account of the inflexible and rigorous zoning limitations along Fifth Avenue.

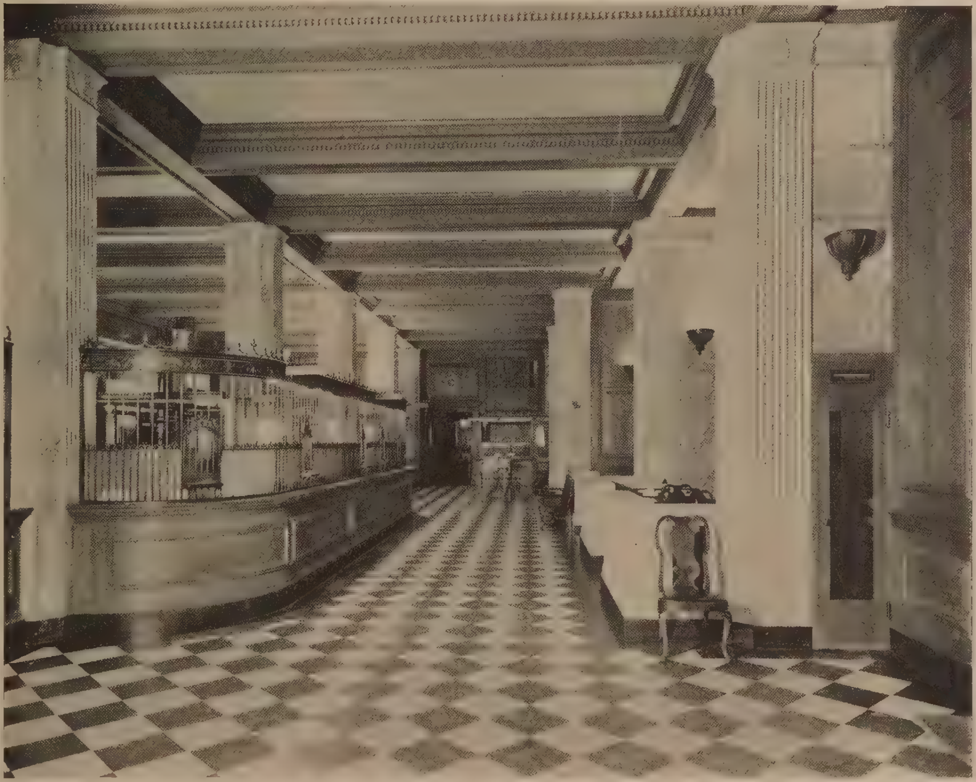
Not only are the show-window fronts and entrance-doors of bronze, but all of the double-hung windows of the upper stories are likewise of bronze to insure maximum ease of operation. The question of durable windows was given great attention by the architects, and the Copper and Brass Research Association was called in for advice. Finally it was decided to use windows of a special design, made of bronze of an alloy possessing the necessary strength, hardness, and weathering qualities.

The main entrance is on Fifth Avenue with the secondary entrance on 41st Street. The entrance-hall is finished with a high wainscoting of creamy Bottocini marble, with a base of dark, heavily veined Monte Aurato, and has an ornamental plaster ceiling in color and floors of Italian travertine with Cosmati borders of colored marbles.

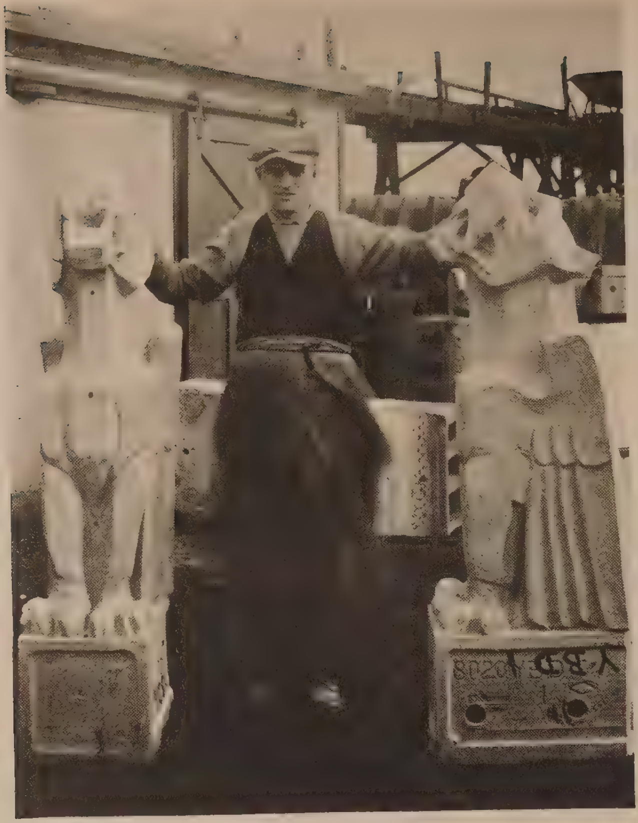
The elevators in two banks, one serving to the twelfth floor, the other express from tenth to twenty-fourth floors, are of high-speed Otis variable-voltage type. The elevator cabs are of bronze, as are the elevator doors on the first story.

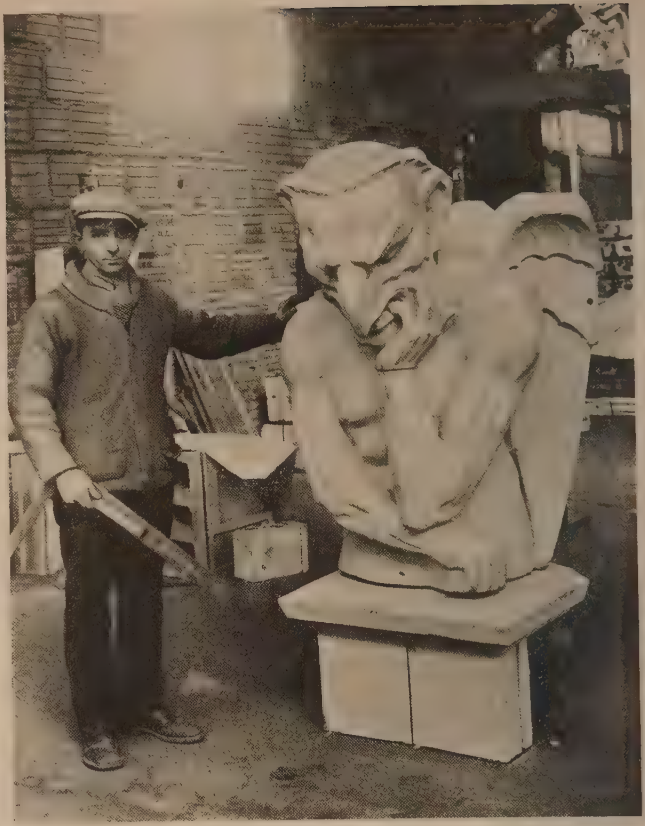
The Farmers Loan and Trust Company occupy the Fifth Avenue corner, basement, and first and second stories. The rest of the first story is devoted to retail stores. The upper floors have been laid out so that tenants requiring either large or small areas may be accommodated. The seventeenth floor has been rented to dentists, all of whose requirements in the way of current, water, gas, and compressed air are supplied by the building. Hollow steel doors and steel trim are used throughout.

The electrical current is supplied by the New York Edison Company, and the steam for heating by the New York Steam Company.



Banking-room, Farmers Loan and Trust Company Building. Peabody, Wilson & Brown, Architects.





TERRA-COTTA DETAILS.

PLACING TERRA-COTTA FIGURES.

FARMERS LOAN AND TRUST COMPANY BUILDING, NEW YORK.

Starrett & Van Vleck, Architects.

Standardization and Simplification as Applied to the Building Industry

(Concluded)

By Richard P. Wallis

WE may well ask ourselves what are the real advantages to be secured under a national interindustrial handling of these problems, how this development came about, and, third, what agencies have been constituted in this country and what results they have to show particularly as regards the business of building.

You will recall that we prefaced this article with a few remarks regarding waste. Simplified manufacturing practice standardizes production, stabilizes employment, broadens markets, reducing selling costs—all elements conducive to the elimination of waste and misdirected energy. These economies are all passed on to the ultimate consumer and in our particular field the cost of building is substantially reduced.

Who has been responsible for this concerted effort toward economy and efficiency? Paradoxically enough, not the ultimate consumer, although he becomes the chief beneficiary, but the industries themselves have been responsible for this clarification of the industrial and economic atmosphere. The industrial leaders have sensed the need of an economic Moses to lead them from the sloughs of inefficiency into the Promised Land. Self-preservation demanded relief from that unbearable burden—that old man of waste—that 49 per cent of waste shackled to the shoulders of industry, an affront to the business conscience of our industrialists.

What agencies have been established to function in this capacity, and what have they accomplished to justify themselves in the matter of reducing building costs?

In order to provide such a clearing-house that would by its impartial character be able to exert the leadership so essential in such an experiment—five national engineering societies—The American Society of Civil Engineers, The American Institute of Mining Engineers, The American Society of Mechanical Engineers, The American Institute of Electrical Engineers, and The American Society for Testing Materials—organized in 1918—The American Engineering Standards Committee aimed to formulate ways and means of dealing with the innumerable problems pressing for solution.

The function of this A. E. S. C. in developing standards is purely disinterested, and is confined to offering to representatives of the various industries interested in the possibilities involved a proper channel with which to carry on the programme. The initiative in each instance must come from the industry itself. Those interested must (1) decide whether the work shall be undertaken; (2) formulate the standards; (3) cast their conclusions in final form as an "American Standard" or a "Tentative American Standard."

The method followed by the A. E. S. C. in arriving at these standards is illustrative of the desire of those directly interested in the field to participate in the benefits to be derived from standardization. The formulation of each of these individual standards is placed in the hands of a working committee. This working committee is composed of representatives appointed by the concerns interested, thus insuring an intelligent and sympathetic treatment of the problem involved. After agreement has been reached among the working committee the standards are submitted to the main committee for approval. This approval concerns itself merely in the adequacy of the representation and the procedure followed and does not take into consideration the technical side of the subject. This is to insure placing the responsibility for the standard in the hands of those vitally interested. Special provision is also made for the approval of existing standards already well established in industry.

At the present time membership in the A. E. S. C. comprises twenty-four member bodies—including seven departments of the federal government; nine National Engineering Societies; nineteen National Industrial Associations—comprising in all some thirty-five separate national organizations.

To date the following standards having particular bearing on the building business have been formulated, or are in the process thereof:

Specifications and tests for Portland cement.
Specifications for fire tests of materials and construction.
Structural-steel shapes.
Specifications for drain tile.
Safety code for building exits.
Safety code for construction work.
Codes for lighting factories, mills, and other work places.
Safety code for floor and wall openings, railings and toe boards.
Identification of piping systems.
Safety code for ladders.
Elevators.
Safety code for elevators and escalators.
Method of test for unit of weight of aggregate for concrete.
Method of test for voids in fine aggregate for concrete.
Method of test for organic impurities in sands for concrete.
Specifications for pipe, cast-iron, and special castings.
Safety code for walkway surfaces.
Code for lighting of schoolhouse.
Architectural terra-cotta and methods of setting.
Symbols for electric equipment of buildings.

A total of 68 standards have already been approved and there are some 159 projects now approved and under consideration, and this list is certain to increase in number as the committee comes into a full measure of its value.

Another feature of the work of this committee is its co-operation with the standardizing agencies of the Federal Government, the Federal Specification Board, the Bureau of Simplified Practices, and the Bureau of Standards of the Department of Commerce in the codifying of industrial practice as it affects the various governmental activities.

The A. E. S. C. also acts as the representative of the United States in matters pertaining to international standardization.

The development of simplification in the last few years has been evidence that our manufacturers are judging it increasingly necessary to set their various houses in order, to meet the ever-growing costs of manufacture and yet maintain a price schedule commensurate with a fair profit on their investment.

It had become a pretty generally accepted theory that in order to stimulate sales a large and ever-growing assortment of articles must be presented to the buying public. This theory still holds true in the case of certain specialties, but in the vast field of utility buying it has gradually dawned upon the producer that the increased cost of manufacturing, stocking, and distributing these unnecessarily varied lines eats far into whatever profits might accrue from such diversity of sales effort.

As in the case of standardization previously discussed, the recognition of the necessity for some kind of simplification originated with the industries themselves. The lessons of harsh economy forcibly impressed upon industry during the war began to bear fruit under peace-time conditions. If six or a dozen lines of any particular commodity would serve the trade as well as twice that number, why was it not good business judgment to concentrate on the profitable items and eliminate those not so universally in demand?

In order to realize the maximum of efficiency such a movement should be nation-wide in its scope. It was in answer to this demand from industry that Mr. Herbert Hoover organized in 1921 the Bureau of Simplified Practices of the Department of Commerce. Leadership in such a movement should come from some source as impartial as the Federal Government, and yet such activity on the part of the Department of Commerce was viewed at first with some misgiving by many manufacturers as another horrible example of governmental interference in private business. The record of progress and achievement already accomplished is the best answer to those sceptical doubters of the value of such a policy.

Before proceeding further with a discussion of the function and accomplishment of the bureau it will prove advantageous to discuss at some length just wherein such simplification is of value to the industries and to the public at large, for it is they who pay the bills.

Many of our economists believe that we are suffering from too great variety in almost every line of commerce in this country. Industrial leaders in widely different fields hold that a reasonable reduction in variety and a simplification of industrial and commercial practice in any line will secure some or all of the following advantages: A decrease in stocks, production costs, selling expense, misunderstandings, all costs to user; and at the same time will increase—turnover, stability of employment, promptness of delivery, foreign commerce, quality of product, and profit to producer, distributor and user.

Such advantages translated into terms of cost mean but one thing—greater satisfaction to the buying public—both in cost and in quality, and we are dealing with facts and not with theories.

The experience of the last four years has demonstrated conclusively that very sizable savings are made practical through observance of the elementary principles of simplification. As an example of saving to the consumer we need only refer to the experience of the president of a large New York hotel who, through applying the principles of simplification to some 200 items incident to his particular business, has effected an annual saving of $100,000.

Before passing to a list of accomplishments affecting the building industry, it may prove to be of sufficient interest to outline how the bureau functions in fostering these economies. In general its work is carried on through some representative designated by the Trade Association interested, acting in the capacity as a representative of the Department of Commerce.

The initial step is in securing the interest of the Trade Association by presenting to it a recital of the benefits obtained in other lines of industry by simplification. Once the idea is sold a survey of the field is made by some representative of the department to summarize present practice in that particular field. The next step consists of working out in conference with producer, distributor, users, and general interests certain recommendations regarding the elimination of unnecessary lines. These recommendations are then circulated among those interested, in tentative form, and a request for formal written acceptance made. The final step is in publishing these approved recommendations in the department's regular series on simplified practice.

It will thus be noted that at no point does the bureau attempt to dictate to the industries what form the process of simplification will take, or as to its technical character. It merely offers an orderly channel through which the necessary steps may be taken without in any way hampering the industry itself in its search for greater efficiency. The wisdom of such a course is apparent and its success in meeting a multitude of divergent field conditions is a fitting tribute to the broad-minded and constructive policies underlying this economic revolution.

Some critics may claim that owing to the diversified character of the commodity offered for sale by the builder this industry would be but slightly affected by such a campaign for simplification. While it may be true that one rarely encounters two structures that are identical or even approximately so, these critics overlook the fact that, large or small, ornate or plain, these individual edifices represent merely the assembly of a large number of individual units. It is through the simplification of these units, not necessarily in their assembly, that the desired economies may be realized.

In order to obtain some measure of the value of the work carried only by this governmental agency, let us discuss some of the results already obtained in the elimination of unnecessary sizes and styles as this reduction applies to articles commonly employed in the building business.

The following tabulation summarizes the progress already made (1924) in the elimination of unnecessary styles incident to certain items common to the building industry:

	FROM	TO	PER CENT ELIMINATIONS
	Varieties	*Varieties*	
Paving brick	66	5	92.4
Metal lath	125	24	81.
Rough-face brick	39	1	97.5
Smooth-face brick	36	1	97.
Hollow building tile	36	19	47.
Structural slate			84.
Roofing slate—			
Descriptive terms	17	8	53.
Thickness	21	10	52.
Sizes	60	30	50.
Lumber			60.
Builders hardware—			
Lock and lock trims			30.
Butts and hinges			33.
Shelf and miscellaneous			24.
Finishes	100	29	71.
Brass lavatory and sink traps	1,114	72	93.5
Eaves trough, conductor pipe, conductor elbows and fittings			
Hot-water storage tanks	120	14	88⅓
Concrete building units			
Steel reinforcing rods	32	11	65.6

One factor to be considered is that the percentages listed above refer only to the progress of simplification to date. As the resultant advantages are better understood and appreciated by both manufacturer and consumer, and the recognition becomes general that such simplification constitutes a positive benefit to all concerned we may expect still further elimination on the part of the various trades. That the results to date have not been arrived at simultaneously is well illustrated by the successive steps taken by the paving brick manufacturers in arriving at their present status. The original investigation found some sixty-six varieties recognized by manufacturers. This was first reduced to eleven varieties, then to seven, and later to six, and finally to five. To the layman the surprising part of this entire process of simplification is the fact that industry is served exactly as well as before the reductions were made and at a much less cost to the ultimate consumer.

The Department of Commerce has summarized the progress made in this direction in an interesting series of booklets entitled "Simplified Practice Recommendations"—covering in detail the changes accepted by the various trades.

The measure of success attained by any major development of this character is in direct ratio to the basic need thereof. The eagerness with which industry in general has accepted this carefully worked-out recommendation of standardization and simplification amply bespeaks their economic worth.

New York University Announces the Formation of a Division of Architecture

THE organization of a new "Division of Architecture," differing in many ways from the typical architectural school, is announced by General Charles H. Sherrill, chairman of the Department of Fine Arts of New York University. Because of the adaptability of its organization, methods, and schedule to the individual, the new programme will fill a need long felt by the architectural profession. It will be very similar in its policy to the Ecole des Beaux-Arts in Paris, for two centuries the foremost school of architecture in the world. It will neither duplicate nor compete with existing schools, but will do useful work in providing complete training for those who cannot afford or do not care to spend five or six years at college. The new division will be particularly adapted to those who have to earn a part or the whole of their living. Instruction will be given in the late afternoon and evening in the East 42d Street district, the greatest centre for architects in this country, thus making the courses available to hundreds of students and draftsmen.

Professor E. Raymond Bossange, for eight years Dean of the College of Fine Arts of Carnegie Institute of Technology, Pittsburgh, and now Director of the School of Architecture of Princeton University, has been called to take charge of this new Division of Architecture.

For many years the ateliers and competitions organized under the auspices of the Beaux Arts Institute of Design in New York, have made it possible for hundreds of talented draftsmen and students to become able designers. The admirable work done in this field under the leadership of the late Lloyd Warren has been one of the important factors in raising the standards of American architecture. The Department of Fine Arts of New York University is now entering into collaboration with the Beaux-Arts Institute of Design. It proposes to make it possible for all talented and industrious men to acquire the necessary knowledge of mathematics, mechanics, engineering, history of architecture and allied arts, freehand drawing, and modelling. The work done by one institution will thus supplement that done by the other, and the two co-operating will completely fit a man to practise architecture.

A diploma will be given to those who fulfil the joint requirements of the two institutions. It is expected that this diploma will come to have the same prestige in the opinion of the architectural profession as the "diplôme" given by the French Government. The requirements for the diploma will be determined in conference with the foremost practising architects and educators in the country, and thus will be not only thorough but professionally practical. Outlines for all courses will be furnished, helping and directing outside work, and bringing about a broader understanding of the various courses and their relation to architectural practice. The matter and the standards of the courses will be so planned as to cover the requirements of the several States for the certificate of architecture.

No specific time limit or schedule will be fixed for the completion of the course, progress depending entirely upon the ability and industry of the student. Every encouragement will be given to the ambitious student to help him to advance rapidly, and to those who are not occupied during the day, special opportunities will be offered.

Securing credit for a course will depend on the mastery of the subject, as shown in the comprehensive and detailed examinations and tests held twice each year. The fact that a student has paid for a course and has sat through a number of lectures, will not entitle him to credit. Where and how he has acquired his knowledge and ability will not be considered, and students who show sufficient preparation will be allowed to take the examinations and tests for their diploma without further instruction.

In design, credit must be won in the competitions of the Beaux-Arts Institute of Design, and its certificate will be necessary to satisfy the requirements in that subject. The work in design may be done in any school or atelier in this country or Europe, provided it is approved by the Beaux-Arts Institute of Design.

In all courses, advantage will be taken of the exceptional opportunities offered in New York City for the study, on the spot, of methods of construction, the practical and artistic solution of new problems, and different styles of architecture. The ambitious student will have an opportunity to get a broad fundamental knowledge of his profession, to acquire an insight into the historical sources of inspiration, and to develop his sense of beauty.

Among others who are to serve on the advisory board are: B. Wistar Morris, Kenneth Murchison, C. Grant LaFarge, Raymond Hood, Lansing C. Holden, Chester Aldrich, C. C. Zantzinger, and George C. Nimmons.

Bulletins announcing courses to be given, and other particulars, will be issued early in September.

Book Reviews

ARCHITECTURE OF THE OLD SOUTH. By Ernest Ray Denmark. With a Foreword by Lewis E. Crook, Jr. Photographic Plates Illustrating the Better Work Between 1640–1850. The Southern Architect and Building News, Atlanta, Ga.

This collection of illustrations that have appeared in *The Southern Architect and Building News* has been made with a view of presenting a number of representative types, chosen from different sections of the South.

An attempt has been made to show examples that illustrate three distinct types of the traditional architecture of the South: the Colonial architecture of Maryland and Virginia, the old buildings of Charleston, and the lesser known examples of the classic revival which are scattered through Georgia, Alabama, and Mississippi. Mr. Denmark has done a real service in gathering these old buildings into a volume.

There is a charm of tradition as well as the charm of picturesque and interesting design, a dignity and a convincing impression of well-mannered living in the aspect of the old houses.

The collection includes both exteriors and interiors as well as a number of details.

ENGLISH ROOMS AND THEIR DECORATION AT A GLANCE. By Charles H. Hayward. Over 200 Illustrations from Drawings. G. P. Putnam's Sons, New York.

This is a review in pictures of English rooms and their decoration from the eleventh to the eighteenth centuries.

There is a chronology of styles and their periods from Norman to late Georgian and chapters on each illustrated with special characteristics such as panelling, ceilings, staircases, fireplaces, doors and doorways, etc.

You may look up the difference between the early and later Jacobean period, study the details that belonged to the Wren period, Tudor Gothic, Elizabethan, etc. It is a book for the amateur rather than the professional, but should have value for all interested in the subject.

HOUSE AND GARDEN'S SECOND BOOK OF INTERIORS. The Condé Nast Publications, Inc., New York. Edited by Richardson Wright and Margaret McElroy.

We commend this book to all of our architectural readers. It is a mine of useful information on such matters as halls, living-rooms, libraries, dining-rooms, bed-chambers, etc., together with color schemes and suggestions about period furniture and other accessories. It will make a nice book to have on your table for clients to look over and there will be times when some of the profuse and admirably printed illustrations in black and white and color will furnish you with suggestions worth having.

The publishers say that "it is the most complete portfolio on the subject of decoration that has ever been made available to the general reader," and we think this is fairly put.

At the end of the book there is a list of the decorators whose work has been shown, and a supplementary list of catalogues to be had for nothing and the books that may be bought or consulted.

JOINTS AND HOW THEY ARE MADE. By William W. Klenke, Instructor in Woodworking, Central Commercial and Manual Training High School, Newark, N. J. The Manual Arts Press, Peoria, Ills.

This book, covering the making of good joints for practically every type of construction, is intended to be used as a text for students in manual-training high schools, trade, vocational, and normal schools. In addition, the book will be a help to the manual-training instructor and a guide to the draftsman and architect. The various types of joints are fully illustrated in the plates, as indicated in the contents: Planing; sawing; marking; cross-lap joints; pinned thru mortise-and-tenon joint; haunched double mortise-and-tenon joint; coped mortise-and-tenon joint; half blind dovetail joint; multiple half blind dovetail; thru multiple dovetail joint; dowel joints; leg-and-rail or butt-dowel joint—edge-to-edge dowel joint—end-to-end dowel joint; miter joints; miter joint nailed—miter joint with spline—miter joint with slip-feather—miter joint with reinforced backing—slip mortise-and-tenon miter joint—half-lap miter joint; dado and rabbet joints; rabbet joint—dado joint—dovetail dado joint—multiple slip mortise-and-tenon or finger-lap joint—tongue and groove joint; halved joints; halved or end-lap joint—middle lap joint—dovetail halving—spliced and fished joint—notched joint; mortise-and-tenon joints; blind mortise-and-tenon joint—stub mortise-and-tenon joint—housed mortise-and-tenon joint—slip or end mortise-and-tenon joint—keyed mortise-and-tenon joint—tusk mortise-and-tenon joint.

DRAWING, ITS HISTORY AND USES. By W. A. S. Benson. With a Memoir by the Hon. W. N. Bruce, C.B., Oxford University Press, American Branch.

Mr. Benson began his career in an architect's office, but his reputation was made in the arts and crafts, notably as a worker in metal. He was a friend of Burns-Jones and William Morris, and at the latter's death he became chairman of the William Morris Co., Decorators. He was a man of fine taste and the chapters in this little book on Primitive Drawing, Drawing and Writing, Graphic Formulæ, Planning, Pattern and Drawing, Decorative Art, Range in Art, reveal him as a man of original thought and special knowledge.

MAHOGANY, ANTIQUE AND MODERN. A STUDY OF ITS HISTORY AND USE IN THE DECORATIVE ARTS. Edited by William Farquhar Payson. Contributors: Charles Over Cornelius, Associate Curator of American Art, Metropolitan Museum of Art, New York; Henry B. Culver, author of "The Book of Old Ships"; Ralph Erskine; Frances Morris, Associate Curator, Department of Decorative Arts, Metropolitan Museum of Art, New York; Kenneth M. Murchison, A. I. A., Meyric R. Rogers, Professor of Art, Smith College; Karl Schmieg. E. P. Dutton & Co., New York.

In how many old houses in New England and elsewhere are there pieces of old furniture spoken of with pride as being of "solid mahogany." They may represent the work of one of the famous English designers of Colonial times, or that of one of their American imitators, but the sound of the word "mahogany" is the talisman, the assurance of a unique and valuable possession. "Of the multifarious uses to which mahogany can be put the reader will find an impressive list in the following pages," says Meyric R. Rogers in his preface.

The volume begins with a picturesque account of the adventurous hunt for mahogany in the tropical forests. "Whether in Mexico, Honduras, Nicaragua, or along the Gold or Ivory Coasts of West Africa, the work of logging still demands individual initiative and hardihood."

In the chapters by Mr. Schmieg, an accomplished craftsman with an exceptional experience, we are told of the "Preparation of the Wood," the way it is sawed and cut into sections for particular uses.

In "The Nature of Mahogany" he tells why the great cabinetmakers have preferred this beautiful wood to others, and describes the various ways of "Working and Finishing the Wood."

Mr. Murchison dwells on the great period of architecture of the eighteenth century in England, "a golden age of building," when wealth and luxury were made manifest in the great homes of the aristocracy—the day of Blenheim, Chatsworth, Sir Robert Walpole's famous place, Houghton.

Mr. Culver writes with special knowledge of the "Structural and Decorative Uses in Marine Architecture and Boat-Building," and Frances Morris tells the story of the "Piano and Its Prototypes."

The chapter of the greatest interest to most readers will be the one by Mr. Cornelius, where he gives us an informing review of "Historic Furniture Styles." It is here that we come into contact with those intimate accounts of comfortable living, tables, beds, chairs, old clocks, highboys, etc., in which most of us are interested. In "Masters and Masterpieces of the Eighteenth Century," "The French Tradition," and "The American Inheritance" the reader will find information of special value and interest. It is encouraging to know how well Mr. Erskine thinks of "The Furniture of To-day."

The illustrations that accompany the text take the reader into the primitive forests where the trees are cut, showing natives at work, through the mills where the logs are sawed, into factories where the furniture is made. There are pictures of notable English interiors, of beautiful yachts, of pianos, of work by Chippendale, Sheraton, the Adam brothers, Heppelwhite, etc.

This is a book for the architect, the collector, the amateur.

FURNITURE PROJECTS. By Frederick J. Bryant. Paper covers. Manual Arts Press, Peoria, Ill.

Teachers of woodworking are looking for new and different projects all the while, and this collection is of special interest. It contains a number of projects in which there is much interest at present, including a period style phonograph, Hepplewhite card-table, gate-leg table, mirrors, book-ends, a desk, book-case, etc.

The projects are adapted to a wide range of ability, some for grammar-grade students and some for high-school students. Fine craftsmanship characterizes the entire collection.

YEAR-BOOK NEW YORK SOCIETY OF ARCHITECTS. New York Society of Architects, 29 West 39th Street, New York.

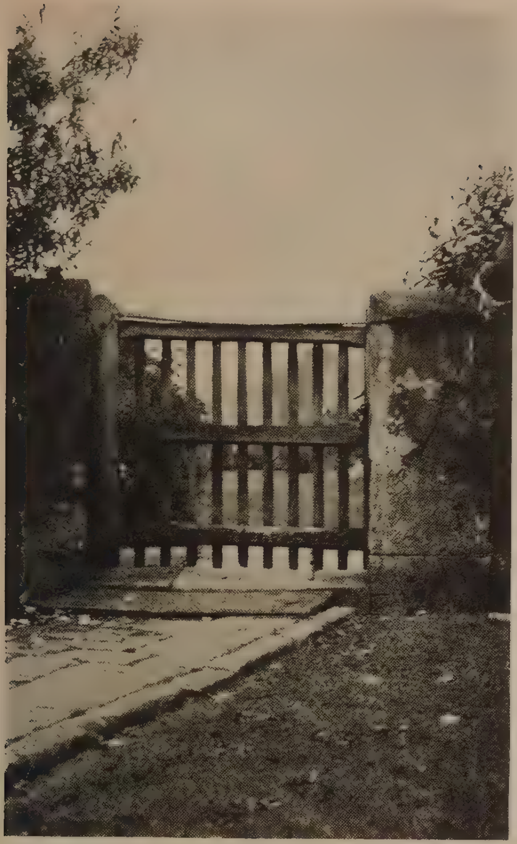
A useful reference containing a list of architects in New York City and the State, Building Code of New York City, Classified Index of Building Trades, Labor Law of New York State, Mechanics' Lien Law, Tenement-House Law, and much other information of practical value.

PORTFOLIO OF ONE HUNDRED AND ONE SMALL HOMES. Designed by R. C. Hunter and Brother, Architects.

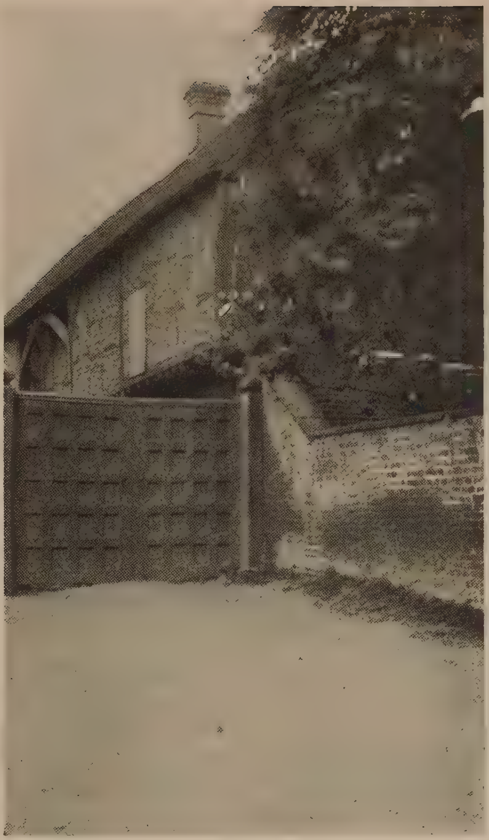
Loose sheets showing elevations and plans of a widely varied series of small houses, many of them of great charm.

BUILDING CODE OF CITY OF SANTA BARBARA, CALIFORNIA. Community Arts Association, Santa Barbara.

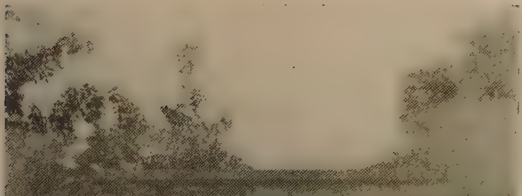
A code drawn without regard to commercial affiliation or political preferment, as close to fool-proof and to disaster-proof as it appeared humanly possible. It is hoped that the new code will absolutely prevent any recurrence of the disastrous weaknesses revealed by the recent earthquake.



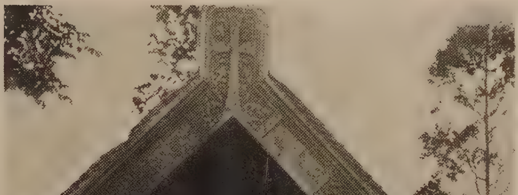
COMPTON WYNYATES.



ALONG AN ENGLISH ROAD.

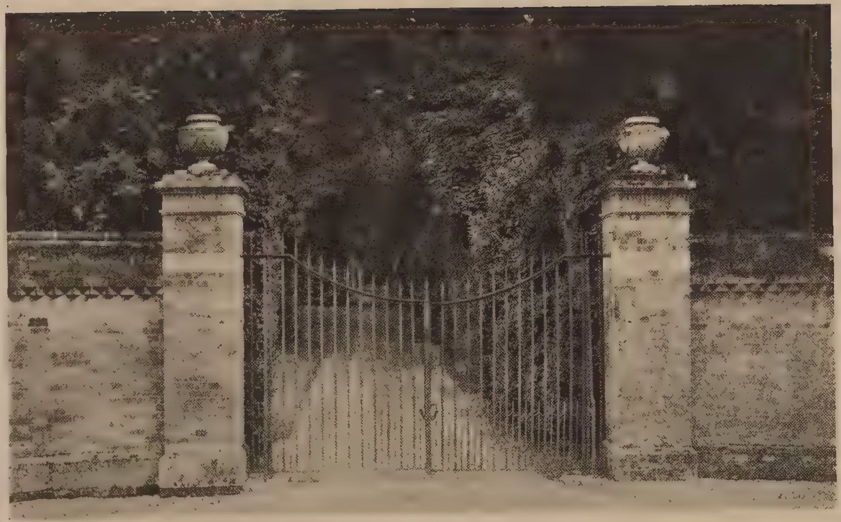


IFORD MANOR.

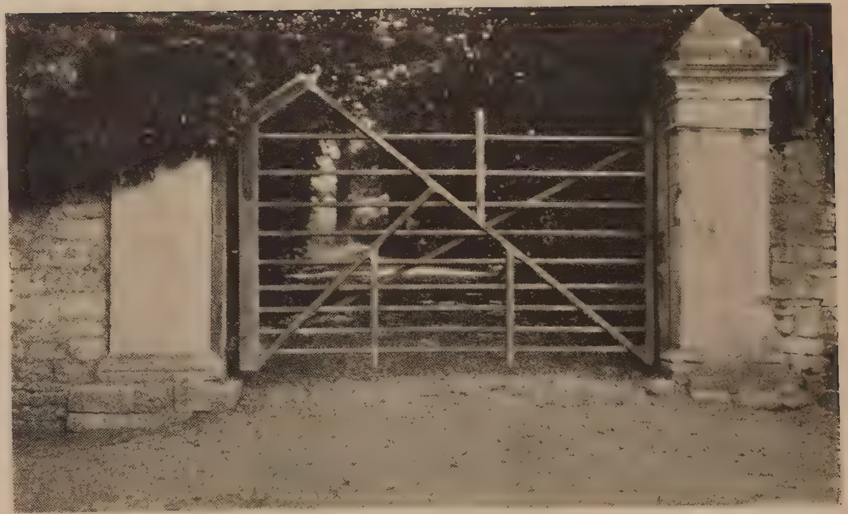


PORT SUNLIGHT.

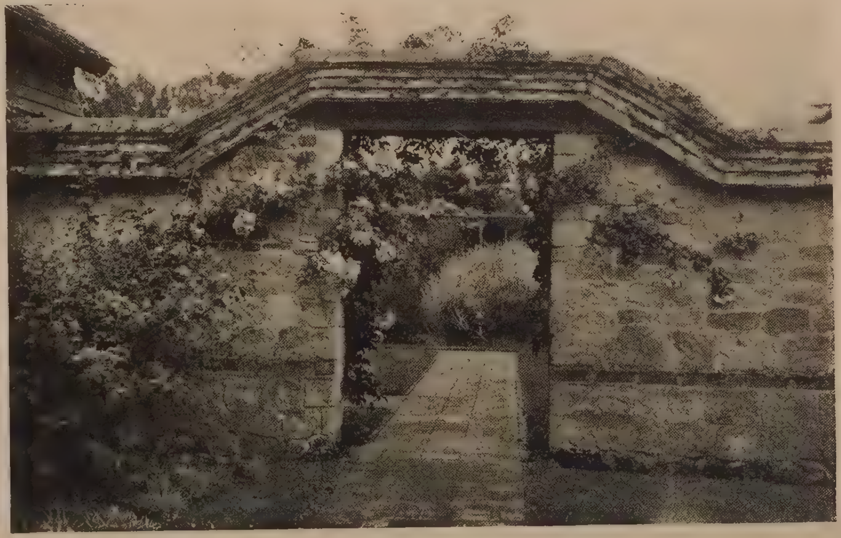
ENGLISH PHOTOGRAPHS MADE BY WM. PITKIN, JR., AND SEWARD H. MOTT, LANDSCAPE ARCHITECTS. (SUMMER OF 1925.)



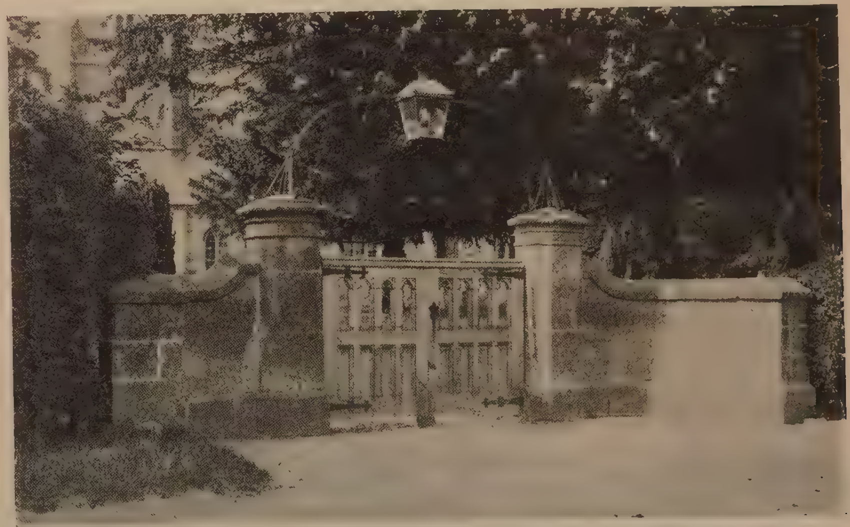
WALDEN.



GATE IN OXFORDSHIRE.

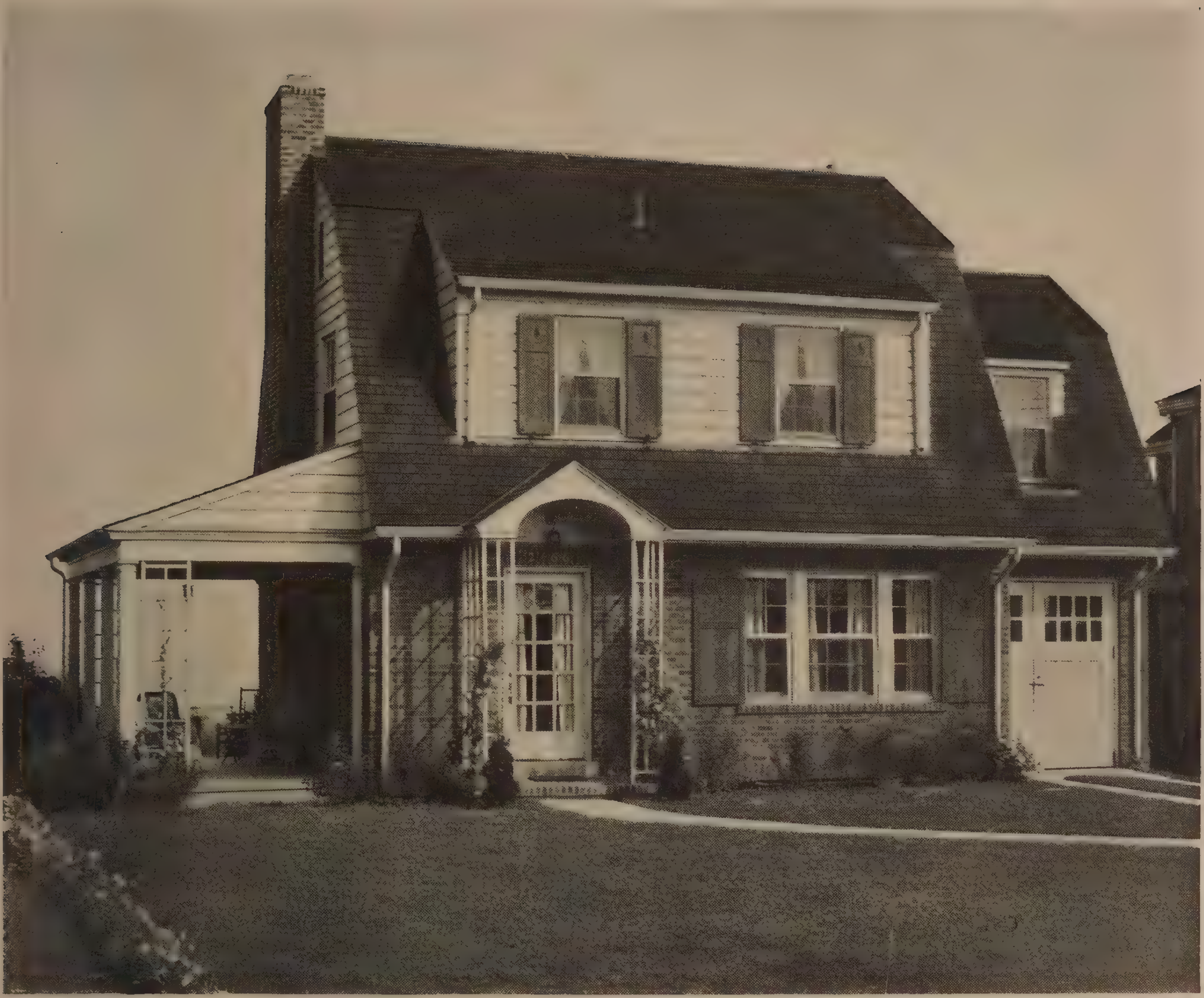


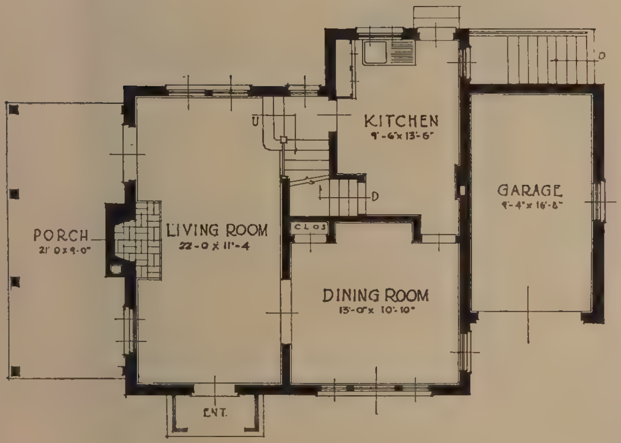
GODALMING MANOR.

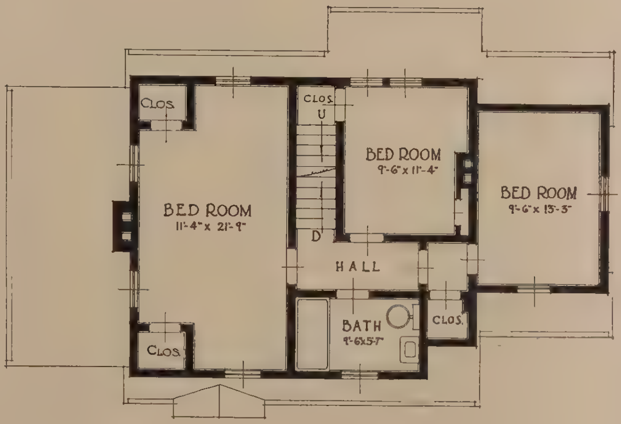


ELMS BY CASTLE.

ENGLISH PHOTOGRAPHS MADE BY WM. PITKIN, JR., AND SEWARD H. MOTT, LANDSCAPE ARCHITECTS. (SUMMER OF 1925.)

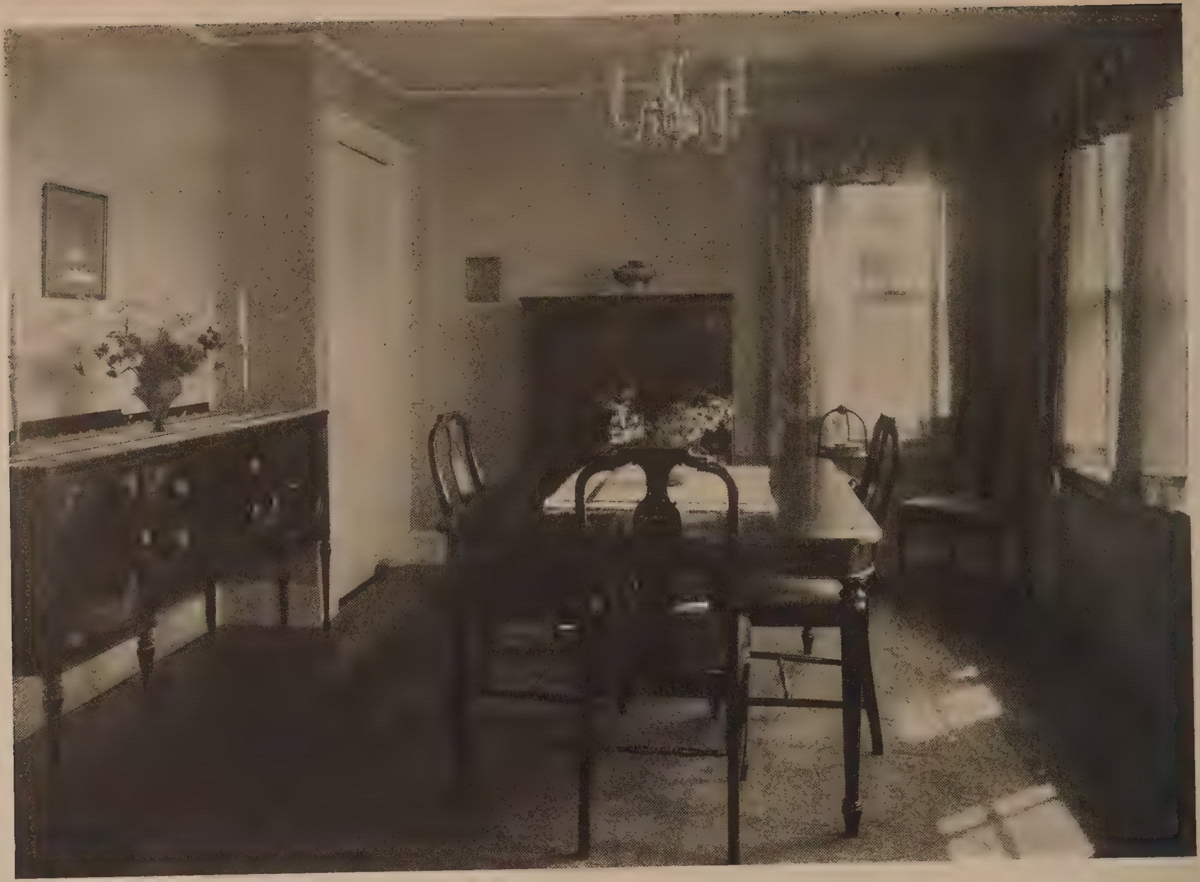




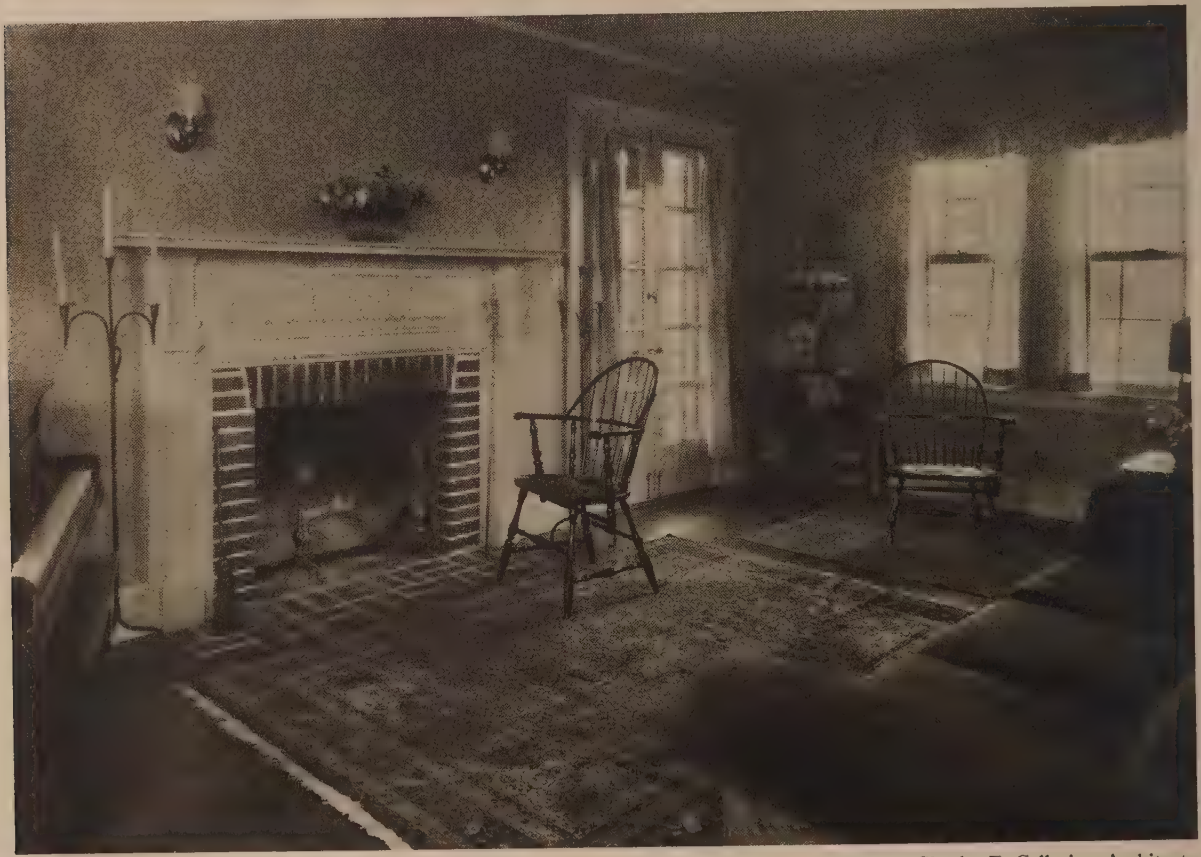


HOUSE, CHARLES F. CELLARIUS, NORWOOD, OHIO.

Charles F. Cellarius, Architect.



DINING-ROOM.



LIVING-ROOM.

Charles F. Cellarius, Architect.

HOUSE, CHARLES F. CELLARIUS, NORWOOD, OHIO.

(*Continued from page 190*)

In his reaction against the baroque, Harrison led the way in America. His example, indeed, had little immediate and direct influence. His Palladianism, like the Palladianism of Burlington in England, was momentarily submerged again by the tidal wave of the *rocaille*, but it was to outride the storm. Before his death Jefferson had already begun his new reading of Palladio and the Palladians, which, with the progress of time, was to carry him back to the classical sources themselves. The Redwood Library was the forerunner of the Virginia Capitol; Harrison the forerunner, as Jefferson was the founder, of American classicism.

THE END.

OLD ENGLISH THATCHED COTTAGE.

From a lithograph by Geo. T. Plowman.

Announcements

E. T. Heitschmidt, Pacific Mutual Building, Los Angeles, Calif., has moved to 1934 Hopkins Street, Berkeley, Calif.

Weston & Weston, architects, announce the removal of their offices from 515 Hollywood Security Building to 1610 Cosmo Street, Hollywood, Calif.

Obadiah Bass and Flournoy G. Hagan announce a partnership for the practice of architecture under the name of Bass & Hagan, and after April 1 will be in their new offices, second floor of the Still Building, 131 West Short Street, Lexington, Ky. Successors to Obadiah Bass, Lexington, Ky., and William K. Hagan & Son, Paris, Ky.

John B. Thomas, architect, has removed his offices to the Real Estate Exchange Building, Lake Wales, Fla.

Chester H. Walcott, architect, announces the removal of his office to Room 1510, Tribune Tower, Chicago, Ills.

Professor D. Varon, architect, D. P. L. G. F., 128 Madison Avenue, New York, announces his courses of private teaching in Architectural Design, Rendering, Practical Perspective, and Indicating.

John P. Parrish, formerly of Indianapolis, Ind., has opened an office for the practice of architecture at 201 Mackey Building, Hollywood, Fla.

H. I. Feldman, architect, 415 Lexington Avenue, New York, announces his removal to larger quarters.

Walter Earle Bort, architect, announces that his offices formerly located at 601–602 Wilson Building were removed to 201–203 Tucker Building, Clinton, Iowa. Miss M. L. Petersen will have charge of the offices and specifications.

D. Leonard Halper, architect, and Lee Perry, associate, 310 Realty Board Building, Miami, Fla., have established offices at the above address and would appreciate samples and literature from interested concerns.

Gebhart & Schaeffer, architects (Rollin E. Gebhart, A. I. A., Walter G. Schaeffer, A. I. A., J. Howard Hahn), Keith Theatre Building, Dayton, Ohio, have moved to 918–930 Miami Savings Building, Dayton, Ohio.

The undersigned beg to announce a partnership for the practice of architecture under the name of Foltz-Osler & Thompson, with offices at 704–710 J. F. Wild Building, 129 East Market Street, Indianapolis. Herbert Foltz, F. A. I. A., Willard Osler, Macy G. Thompson.

Wolf, Sexton, Harper & Trueax, Incorporated, engineers and architects, have removed from 7 West Madison Street to Room 3000, Tribune Tower, Chicago, Ills.

Frederick Westcott, architect, has opened an office in Portland, Ore., at 617 The Northwestern National Bank Building, for the practice of architecture. He will be glad to receive manufacturers' catalogues and building information.

Isadore E. Alexander and Robert L. Brandt announce the opening of an office for the practice of architecture under the firm name of Alexander & Brandt, 332 State Lake Building, Chicago, Ills.

Eugene De Rosa, architect, will be located at 15–17 West 44th Street, New York City.

Charles Wellford Leavitt and Son, civil and landscape engineers, announce the removal of their offices to 285 Madison Avenue at 40th Street, New York City.

George Fred Pelham, architect, announces the removal of his offices to 570 Seventh Avenue, New York City.

William B. Tubby, architect, announces the removal of his office to the Farmers Loan and Trust Company Building, 475 Fifth Avenue, New York City.

John Matthews Hatton, architect, announces the removal of his office from 220 Fifth Avenue to 665 Fifth Avenue, New York City.

Mr. Henry T. Dysland, architect, registered in Wisconsin, wishes to announce that he is now located at 617 Beaver Building, Madison, Wis., for the general practice of architecture, and will be glad to receive catalogues, etc.

Christian H. Fries, architect, announces that his new offices are located in Suite 221 Oxford Bank Building, Frankford, Philadelphia. Present office, 1025 Drexel Building, for downtown appointments.

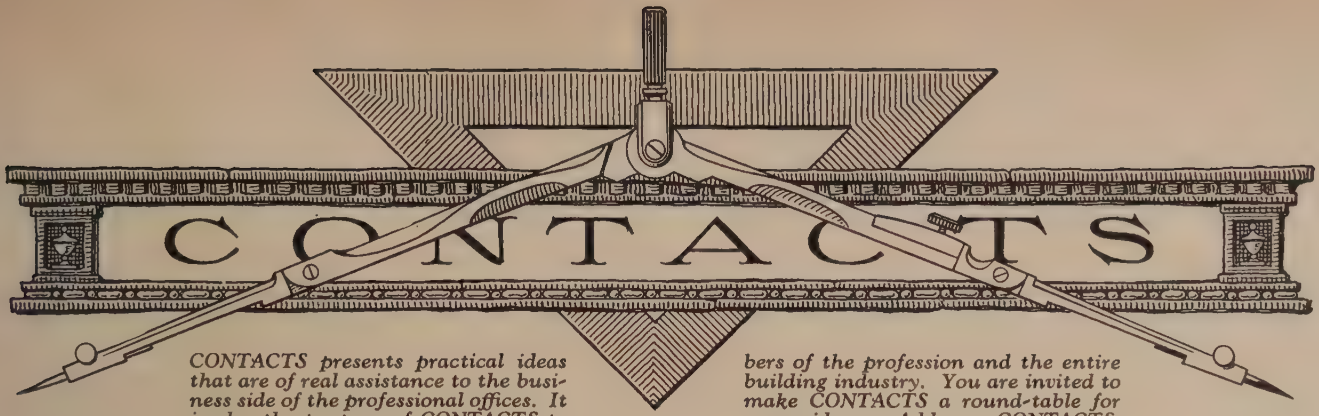
Taylor & Mosley, architects, announce the removal of their offices from 40 Wall Street to 175 Fifth Avenue, New York. Everitt Kilburn Taylor and Richard Keeler Mosley.

Harry Kirshbaum, architect, wishes to announce the removal of his offices, 25 West 43d Street–26 East 125th Street, to the Candler Building, 220 West 42d Street, New York City.

Rudolph James Nedved and Elizabeth Kimball Nedved announce the opening of their architectural office-studio in the Marquette Building at 140 South Dearborn Street, Chicago, Ills.

Herman M. Sohn, architect, announces the removal of his offices to the Farmers Loan and Trust Company Building, 475 Fifth Avenue, New York City.

From a lithograph by Geo. T. Plowman.



CONTACTS presents practical ideas that are of real assistance to the business side of the professional offices. It is also the purpose of CONTACTS to bring about a better understanding and co-operation between the members of the profession and the entire building industry. You are invited to make CONTACTS a round-table for your ideas. Address CONTACTS, ARCHITECTURE, 597 Fifth Avenue, New York.

The Steel House

How the Steel House Is Built—A Discussion on a New and Important Phase of Construction

By Arthur T. North, A. I. A.,
American Institute of Steel Construction

THE ability to interpret house plans has become quite universal and it is a distinctly different people who study them now from those who, when I, a carpenter's apprentice boy, watched the boss carpenter draw the two floor plans of a house on the planed-smooth face of a twelve-inch white-pine board with a carpenter's pencil, a steel square, and a two-foot rule. That plan was sufficient for a basis of contract. To-day the readers of every kind of publication study not only house plans, but perspectives, elevations, and interior designs, and also read intelligently the semitechnical descriptive text. Advertising matter pertaining to materials and equipment is studied, and because of its general excellence an intelligent appraisal of their merits is common.

And now it is the "steel house" that is attracting widespread attention, with a consequent desire for complete information. A mere beginning has been made in this country toward the development of the steel house. It is yet to be developed and standardized in certain elements. It is of the utmost importance that the new type of construction be intelligently designed in the beginning so as to avoid misconceptions as to its purpose and value. Designs should be carefully prepared, and it is apparent that in making some designs for so-called steel houses, the basic principles that justify its existence have been neglected.

A certain standardization of construction is desirable but it will be deplorable if applied to the plan and exterior design. There is no reason why the outward appearance, plan, and equipment of the steel house should not be as varied as in the houses of to-day. To design successfully the construction of steel houses, the engineer or architect must "feel" the material called structural steel by having a clear understanding of the various forms in which it is made, their adaptability and economical use.

There are two reasons why structural steel can be used in house construction. It is incombustible and when properly protected is immune from destruction by fire and it provides a structural frame that has any desired degree of strength to resist earthquakes and cyclones, and, second, it affords a security. It should be remembered that security from destruction by earthquakes and cyclones requires a difference in design from that when resistance to fire only is desired.

The first reason, then, is security, as noted above, and the second reason is economy. The steel house can never compete with the shoddy house, which is in a class by itself. But there is every reason to believe that the steel house, having the characteristics as described above, can be produced at a cost comparable with any of the better grades of construction in use at the present time, even in small houses and bungalows.

The structural component parts of a house are the exterior walls and partitions, which comprise the vertical parts, and the floors, the upper-story ceiling or attic floor, and the roof, which constitute the horizontal elements.

The exterior walls which serve as an envelope and a support for floors and roof should be fire-resistant, strong, and have low heat conductivity and waterproofness. The exterior appearance is a matter of choice and can be secured by a variety of materials consisting of face and common brick, stone, and terra-cotta and stucco surfaces applied to hollow tile, brick, or cinder concrete made with a special gypsum cement. When any of these constructions are used, they can safely support the floors and roof, and the only structural steel required is the lintels over door and window openings.

A structural-steel frame in the exterior walls is needed only when masonry construction is not desired as a matter of choice or economy or when designed with special reference to earthquakes and cyclones. When used, the exterior surface can be made of stucco applied to metal lath and the interior surface of plaster-board or metal lath and plaster. The matter of heat conductivity becomes a matter of greater importance than in masonry walls. This is provided for by the use of cork boards or other materials specially manufactured to serve as a foundation for plastering. Insulation of the interstitial space between the inner and outer covering can be filled with one of the various insulating materials made for that purpose. These materials also serve as effective fire-stops. The strength of this type of wall depends entirely on the steel frame, the other parts being merely the envelope.

Partitions serve the purpose of dividing the interior into units, and they often support the floor or partitions in stories above and become load-bearing. While they may be of

(CONTACTS—*Continued*)

variable strength, they should possess adequate resistance to fire and be sufficiently soundproof to prevent the passage of sound from one unit to another. If the partition supports floors or other loads, the steel frame can be made of sections of sufficient strength.

Two types of partitions are in use; one consisting of hollow gypsum blocks or hollow tile, both masonry constructions and plastered; another consists of light steel studs to which are attached plaster boards on both sides and either decorated or plastered; or light steel studs to which is attached metal lath or plaster boards and plastered both sides, making a solid, comparatively thin partition; or light steel studs with metal lath and plaster on both sides forming a hollow partition. The selection of the type of partition will depend largely on the cost, which will vary in different localities. Their value as partitions is practically equal.

The floor serves the twofold purpose of a horizontal division between interior units and supporting loads. It should possess strength sufficient to support the superimposed loads without deflection or vibration; in other words, be absolutely rigid, and prevent the passage of sound from one story to another. The structural features consist of steel joists spaced from sixteen inches to thirty inches apart according to the type selected. The steel joists available at this time are the various forms of "metal lumber" which is made of sheet steel fabricated in I-beam shapes, a trussed constructed joist of light weight and great strength, and very light sections of I beams rolled for this particular purpose, known as J and L junior beams. Thus a considerable choice is available which will satisfy the local conditions controlling cost.

On these steel joists are placed one of the various forms of rigid metal lath or heavy plaster board which serves as a permanent centring for the reinforced-concrete floor slab. The slab can be made of portland cement, sand, and gravel or cinders, or a concrete made of special gypsum cement and cinders. Where a wooden top floor is used, the nailing strips are embedded in the concrete and rest directly on the joists or centring. If the floors are finished in linoleum, cork, or encaustic tile, the strips are omitted and the floor laid on the concrete slab in the usual manner.

If a beamed-ceiling effect is desired, the joists are encased in plaster board, which, with a plaster-board centring for the concrete slab, can be given a finish coat of plaster or be finished with decorations directly applied. For a flat ceiling, metal lath is attached to the lower flanges of the steel joists to which a seven-eighth-inch thick hard gypsum plaster is applied. A heavy plaster board, securely attached, can also be used and finished with a thin coat of plaster or decorations directly applied.

An attic floor can be constructed in a similar manner but to support a lighter floor load. If there is no attic floor, it is advisable to cover the surface with cork board or other insulating board to prevent heat transmission to the attic space. The dividing construction between the attic and the rooms below is generally a very serious source of heat loss to the attic in the winter and a source of heat admission during the summer, and it should be thoroughly insulated.

The roof can be made of steel rafters similar to those used for floor-joists, on which can be placed a thin reinforced-concrete slab similar to that used in the floors or precast reinforced gypsum slabs to which the roof covering is applied. If slate or burned clay tiles are used, the usual wooden-shingle lath and building paper can be attached directly to the rafters.

The extent of the steel construction can be modified to any desired degree. As a majority of dwelling-house fires originate in the basement, the first floor should, by all means, be of steel construction, and if the basement is sealed effectively against fire spreading to the floor above, one great source of danger is overcome. In this case the stairway opening to the first floor must receive special attention.

Hundreds of schoolhouses are built in this country which are of fire-proof construction up to and including the attic floor or top-story ceiling. The roof is built of wood in the usual manner with an exterior fire-resisting roof covering. The theory is that the roof might be consumed by fire without destroying the balance of the structure. The same theory could be applied to dwellings. If the roof is protected on the outside by a fire-resisting roof covering and the ingress of fire to the attic space is prevented by steel construction or adequate fire-stopping, then the wooden-roof construction does not constitute a fire hazard.

In considering the fire-resisting ability of a dwelling the hazard should be correctly appraised, otherwise a too fire-resistive construction is apt to be used. If the structure itself is non-inflammable, then the contents of the rooms are the only combustibles that can be consumed. In dwellings the combustible contents are of a limited volume and the fire-resisting ability of the structure should be proportioned accordingly.

The measure of fire resistance in dwelling construction is appraised by Mr. Rudolph P. Miller, consulting engineer, past president of the National Fire Protection Association, and former superintendent of buildings for the Borough of Manhattan, as follows:

"The standard fire test requires that a construction should resist a temperature of 1700 degrees Fahrenheit for four hours without permitting the passage of flame, after which a stream of water is applied under certain prescribed conditions. For dwelling-houses with the ordinary contents, it is sufficient that the construction should resist a fire temperature of 1700 degrees Fahrenheit for one hour. The floor is the principal feature of interior construction which should by all means be fire-resistive. Next in importance is the load-bearing partition or the partition which divides the spaces occupied by different tenants. Minor partitions separating rooms and closets are not of so much importance but they should be properly fire-stopped. Of course the fire-resistance of exterior walls and roof is of equal importance, and this can be accomplished by using incombustible materials."

It is evident from the above statement by Mr. Miller that the matter of steel construction in dwellings must be approached with conservatism and reason rather than with enthusiasm, which often blinds one to a consideration of every aspect of the subject. It is by providing for the real needs of fire-resistance that the steel house will be so designed that it is economically possible. In such a house, which is secure and desirable in every respect, it is not necessary to eliminate the fine hardwood doors, trim, interior trim, and floors which make houses livable and beautiful. The volume of combustible material in these items is inconsiderable and does not contribute to destruction by fire as much as the contents.

The ultimate adoption of the use of structural steel in dwelling-house construction will result only from a desire to possess it, and there is no doubt but that such a desire is becoming more common. With proper care and intelligent designing the difference in costs of constructing steel houses and those of the better types employed to-day will practically be equalized.

(CONTACTS—*Continued*)

How a Building Goes Through an Architect's Office

By Alfred C. Bossom, F. R. I. B. A.

I AM outlining the procedure of a building through an architect's office by using my own surroundings as an example. Parties interested are continually calling while the building is in progress, and we try to cull out of their sales talks something that is going to be of use to ourselves and the owner. We make an effort in my office to see every one who calls and then if there is something that is valuable to anybody in the organization have that person called in.

Scene in the drafting-room of Alfred C. Bossom's office.

A building is first discussed in my main private office. Schemes and plans of financing are given general consideration, and programmes are outlined. Let us see, for example, how the plans and design of a bank building take shape, and how the mechanism of the office works.

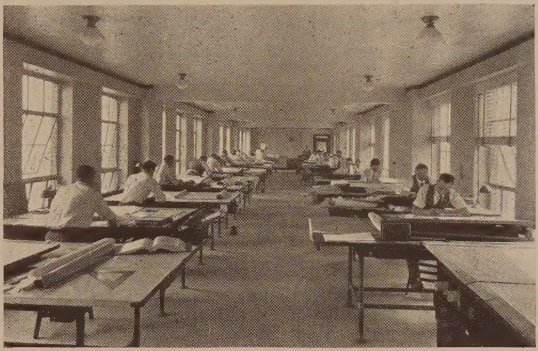
After the plans for the bank have been formulated in the private office, meetings are held in the adjoining board-room or reception-room, attended by all interested parties in the office. In this way every one is conversant with the requirements from the operation's inception until its completion.

Here the vaults, or the mechanical requirements of the undertaking, are reduced to a schedule. The banking equipment, or its equivalent, is generally determined upon. The size of the building and type are figured out, and the form of architecture to be employed is determined. Then the job goes to the adjoining room, where the general designing and preliminary studies are made.

When the designs are completed the entire proposition goes back to the big reception-room for further criticism and revision. Then the mechanical equipment, or vault work, etc., and general specifications are reduced to their complete form, and the structural design is turned over to the engineers to put the bones, as it were, into the building.

From this point on the job captain and his force take hold of the operation and slowly develop it. First to the quarter scale, then the three-quarter, and finally the full-size details. At the same time, working around from the other side of the office, the vault drawings and specifications, the general structural drawings and specifications, the selection of materials, and all other similar matters, are being developed.

Thus, by the time the job captain's drawings have passed through the main drafting-room and have reached the checkers, the specifications, together with drawings, the bills of material, etc., have passed around the other side, and the estimates taken. All the data then comes to the contractor's room, ready for the contractors, material-men, and subcontractors to take hold of the operation and construct it.



The drafting-room of Schenck and Williams, Architects, Dayton, O.

From then on the business department receives the regular reports and progress photographs, and superintendents regularly inspect the work.

The one hundred and one men in the office-force of Holabird and Roche, Chicago, Architects.

(CONTACTS—*Continued*)

Selling Service to the Architect

The Two Types of Sales Work—Saving the Architect's Time in Seeing Salesmen—The Work of Associations

By W. F. Lockhardt

IN a recent article in CONTACTS Edwin H. Hewitt voiced the architect's need for "more and better information," with the statement, "What we need above all things is to obtain a bird's-eye view of what the country's production is in the matter of building materials."

Every architect feels keenly the need of keeping posted on the latest developments in building materials through which he must, by specifications, translate his ideas into the form of actual finished structures. Yet there is also the inescapable fact that not all salesmen are technical experts; more than a few of them have never had practical experience in the designing or erecting of buildings, and in any event, there are not enough hours in the working day for the architect who would try to see even a substantial percentage of the salesmen who visit his offices.

Perhaps some study of the trend of sales effort in the building field to-day may help the architect, whom the manufacturer wishes to serve. Two distinct types of sales work may be noted:

(*a*) The direct sales effort of the individual manufacturer in behalf of his specific product; and

(*b*) The more general promotional and service work of the national trade organizations, or associations of manufacturers of structural materials.

In many lines the manufacturers of building materials are now represented by national organizations which are maintained for the purpose of supplying information and answering technical inquiries; for the direct promotion of the product of their industry; or a combination of both. The existence of such a trade association may be assumed to presuppose a little more than the usual business standards in that industry, in recognizing and accepting the obligation to properly service its product. As a rule it will be found that these organizations are established along broad-gauge lines, under the direction of men who insist that they be conducted according to the highest ethical standards.

This means, among other things, that the information they disseminate must be technically correct, and therefore worthy of more than passing consideration. As a matter of fact, much of the information so issued is based on exhaustive and intensive research work of the highest scientific character.

Here, then, is something that has a direct bearing on the matter. If a national organization has in the field a corps of service engineers, at whose finger-tips may be assumed to be the collected technical data of the industry, why not make the fullest possible use of them? Having nothing to sell, the architect places himself under no obligation, and when forced to choose the man to whom he shall give the few minutes he has available for an interview, why not see the service engineer whose viewpoint is that of a whole industry? (Assuming, of course, that specific information is not wanted, at the moment, about some specialty which only the manufacturer's salesman can give.)

Instead of trying to find the kernel of truth in the sales argument of half a dozen salesmen, why not call in the service engineer of that industry, and see what light he can shed on the problem? It might be remarked, parenthetically, that the term "engineer" is frequently a misnomer—many of the men doing this work have been selected for their architectural training or experience and have a very keen appreciation of the architect's viewpoint.

While it cannot, and should not, be denied that these organizations are intended to develop a wider use of their product, their very existence is proof that the industry they represent appreciates the fact *that the best way to reach that goal is through satisfactory service—something more than the immediate sale which might be made.*

Unfortunately, this wider business vision is not always admitted. A recent publication, a rather complete digest of standard specification relating to concrete and its uses,* illustrates my point. More than one interview, in placing this book in the architects' files, has run somewhat as follows:

"Well, what do I have to buy to get this book? I can see that it cost money; you want something for it; what is it?"

Then, in a few moments: "No, I don't get this service stuff at all. There's a joker in it somewhere. What are you selling?" Opening the book at random, perhaps to the stucco specification—"Here's what I mean—Stucco! Are you trying to sell me stucco? What brand of stucco do you want me to buy?"

The explanation: "I'm not selling you any brand of stucco. I know, and you know, that stucco jobs in the past have occasionally proved unsatisfactory, due to faulty construction or stucco technique. We believe, from our research work, from the research work that has been done by the U. S. Bureau of Standards, and other organizations, and our study of the practical application of their conclusions in the field, that a good stucco job is just as easy to get as a poor one. *You* want to get a good job. *We* want you to get a good job. That stucco specification is written to embody what we know about the subject to help you get that good job. That's all."

And the double rejoinder "Well, mebbe. Sounds funny though."

A more ready acceptance of the possibility that there was no nigger in the woodpile might help that architect, and many of his associates, to get that much desired "bird's-eye view" through the national trade associations, and a consequent saving in time and effort.

And on the manufacturer's side of the fence, while it cannot eliminate the necessity for a trained sales force, presentation of basic facts and data through his trade organization may reduce size and number of catalogues, which would then contain only the data pertinent to his particular product. The improved catalogues, for which every architect is glad to find room, would often eliminate the necessity for the type of salesman who does door-bell ringing, and enable the manufacturer to build up a smaller and more highly trained staff of sales-consultants, specialists in their line and authorities on it, for the mutual good of architect, manufacturer—and owner!

***The SPECIFICATION MANUAL spoken of by Mr. Lockhardt will be sent to readers of ARCHITECTURE at their request.**

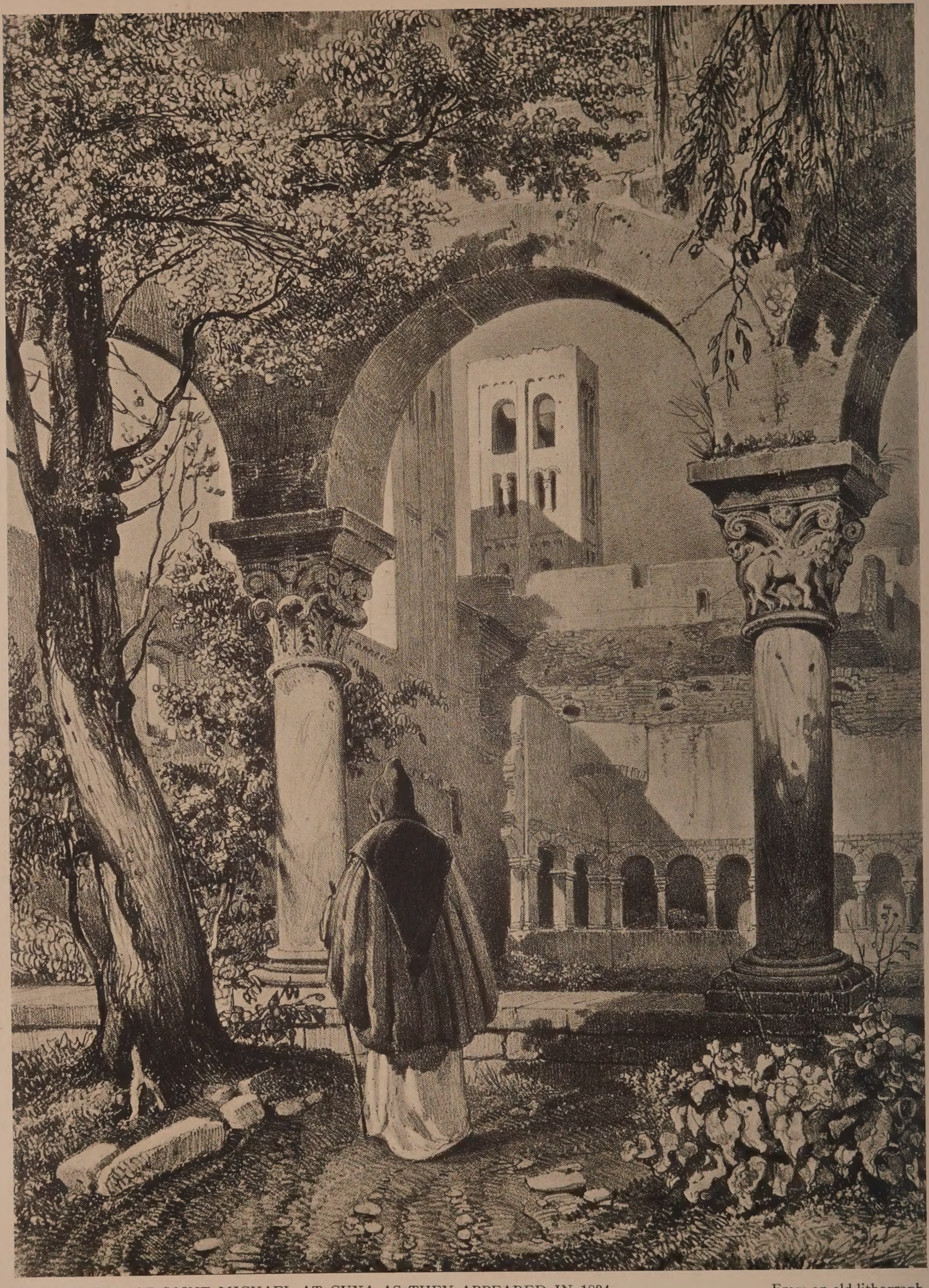


Fig. 14. RUINS OF SAINT MICHAEL AT CUXA AS THEY APPEARED IN 1834. From an old lithograph.